Usenet Newsgroup Archive: rec.radio.amateur.space

2013

These Usenet messages were preserved as a plain-text archive. This PDF was generated by Digital Library of Amateur Radio & Communications from the source text file in 2026.

Date span: 2013-01-01 through 2013-05-20

Source text: rec.radio.amateur.space.txt

Source item: https://archive.org/details/usenet-rec

Messages included in this PDF: 73

Messages are presented chronologically by archived date.

Binary or encoded payloads are not printed as blocks of encoded text; a placeholder appears where such material was detected. The original source text is unchanged.

1. Crossposting Permitted to rec.radio.amateur.moderated

Newsgroup: rec.radio.amateur.space
Date: 2013-01-01 07:00:03 UTC
From: rram@panix.com
Message-ID: <radio/ham-radio/moderated/crossposting-1-1357023601@panix.com>
Source record: 78
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.amateur.space,rec.radio.info

```
Posted-By: auto-faq 3.3.2 beta (PGPMoose V2.0, Perl 5.005)
Archive-name: radio/ham-radio/moderated/crossposting
Revision: 1.2 2011/11/02 04:08:53
Posting-Frequency: posted twice monthly
URL: http://www.panix.com/~rram/usenet/rram/index.html

Changes followed by "|".

After a 30-day public discussion and feedback period to gauge reader
opinions in March of 2009:

http://groups.google.com/group/rec.radio.amateur.moderated/browse_thread/thread/d7d337db35
f23326

the rec.radio.amateur.moderated Moderation Team had decided to consider |
amending its charter, and permit limited simultaneous crossposting to
rec.radio.amateur.moderated and one other unmoderated
amateur-radio-related discussion newsgroup. After a successful trial |
period (90 days, through early July 2009), we decided to adopt this |
change permanently. |

Approved rec.radio.amateur.* newsgroups are those that are currently
listed in the latest version of the "List of Big Eight Newsgroups" which
is crossposted monthly to news.announce.newgroups, news.groups, and
news.lists.misc.

Approved alt.radio.amateur.* and alt.ham-radio.* newsgroups are those
that have been created consistent with the suggestions in "So You Want
to Create an Alt Newsgroup" at:

http://www.faqs.org/faqs/alt-creation-guide/

Approved regional hierarchy newsgroups are those that contain either
"radio.amateur" or "ham-radio" in their names, including
uk.radio.amateur and aus.radio.amateur.misc.

We will make every reasonable effort to keep our list of approved
newsgroups up-to-date. In case we have overlooked any, and a submission
is rejected in error as a result, the rejected submitter can E-mail us
at our administrative contact address (in the signature at the bottom of
this article, and the default Reply-To for the rejection message)
requesting that it be added, and that the article be approved. We may
still choose to reject articles crossposted to any alt.* newsgroup with
an inappropriate name, including obscene language, embedded
name-calling, or encouragement of unlawful conduct.
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Please direct any comments, questions, or criticisms to
rec-radio-amateur-moderated-request@panix.com.

2. ANS-006 AMSAT News Service Weekly Bulletins

Newsgroup: rec.radio.amateur.space
Date: 2013-01-06 03:14:40 UTC
From: JoAnne Maenpaa <k9jkm@comcast.net>
Message-ID: <000901cdebbb$f2220560$d6661020$@net>
Source record: 79
Cross-posted to: rec.radio.amateur.space,rec.radio.info

AMSAT NEWS SERVICE
ANS-006

ANS is a free, weekly, news and information service of AMSAT North America, The Radio Amateur Satellite Corporation. ANS reports on the activities of a worldwide group of Amateur Radio operators who share an active interest in designing, building, launching and communicating through analog and digital Amateur Radio satellites.

Please send any amateur satellite news or reports to:
ans-editor at amsat.org

In this edition:

* Reminder -- AMSAT Receives $25,000 Matching Funds Challenge
* SKN on OSCAR 2013 Best Fist Nominations Due
* Proposal Window for U.S. ARISS Contacts Open until January 28
* AMSAT Awards
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* Kline School Posts AMSAT Announcement

SB SAT @ AMSAT $ANS-006.01
ANS-006 AMSAT News Service Weekly Bulletins

AMSAT News Service Bulletin 006.01
>From AMSAT HQ SILVER SPRING, MD.
January 6, 2013
To All RADIO AMATEURS
BID: $ANS-006.01

Reminder -- AMSAT Receives $25,000 Matching Funds Challenge

Now is the time to take advantage of this opportunity to double your donation.

There are several ways you can double your donation to keep Amateur Radio in Space:

+ Members have received a form in the mail to fill out and return. Please do so today!

+ Go the AMSAT Store and make a donation

+ Donate via a PayPal donation sent to martha at amsat.org or click on our PayPal widget at http://www.amsat.org.

Your generous contribution to AMSAT to support AMSAT and Project Fox now will help ensure that our common dream of keeping amateur radio in space will, indeed, become a reality.

Fox-1A's design goals include:

+ Fox-1 includes a U/V (mode B) FM analog transponder. It's 2 meter downlink should be even easier to hear than AO-51.

+ Fox-1 is being designed so you can work it with just a dual-band HT and an "arrow" antenna.

+ The telemetry data from Fox-1 will be sent on the voice downlink in the frequencies below the audible band as low-speed FSK with forward error correction.

+ Fox-1 will provide an on-orbit test of a new high speed digital data mode for use on future missions.

+ A free telemetry decode program, FoxTLM, will be available to decode and display the low-speed telemetry and the high speed data downlink.

+ Fox-1 is designed to host a significant science payload to support future science missions that help us to get a free launch. This capability is fully utilized in our second ELaNa proposal to fly Fox-1B.

+ Fox-1 is designed to keep the FM transponder active using it solar cells in the event of on-orbit battery charging problems.

[ANS thanks the AMSAT Office for the above information]

SKN on OSCAR 2013 Best Fist Nominations Due

Many thanks to all who participated in AMSAT's Straight Key Night on OSCAR 2013. If you have not already done so, please take a moment to nominate someone you worked for Best Fist. Remember, your nominee need not have the best fist of those you heard, only of those you worked. Send your nomination to w2rs at amsat.org.

This year's event is dedicated to the memory of John Thompson, W1BIH/PJ9JT, who passed away in 2012, aged 96. Although known primarily as an HF DXer and contester, John was also active on OSCAR, mostly on CW.

Those nominated will be recognized in an ANS bulletin in early February, and in The AMSAT Journal.

[ANS thanks Ray Soifer, W2RS for the above information]

Proposal Window for U.S. ARISS Contacts Open until January 28

NASA's Teaching from Space program says their application window for schools and suitable public venues in the United States is open until January 28, 2013.

To be considered for an ARISS contact with crew members aboard the International Space Station the application process consists of submission of an educational proposal describing incorporation of science, technology, engineering and math (STEM) subjects into the curriculum.

The ARISS program is a cooperative venture of NASA, ARRL and AMSAT and other international space agencies that organizes scheduled contacts via Amateur Radio between astronauts and cosmonauts aboard the ISS and classrooms and communities.

One of the ARISS partners, the American Radio Relay League (ARRL), posted information of the proposal process on their web at: http://www.arrl.org/ariss-proposal-requirements

The NASA Teaching From Space web site has all of the instructions and links to downloadable forms posted at: http://tinyurl.com/NASA-TFS-JanuaryWindow (nasa.gov)

Proposals accepted during January are for ARISS contacts that would take place in the U.S. between June 2013 and November 2013.

A variety of public forums considered for ARISS contacts include:

+ School assemblies
+ Science museums
+ Scout camporees and jamborees and space camps
+ Large group audiences where students, teachers, parents, and communities learn about space and space technologies and Amateur Radio.

[ANS thanks NASA Teaching From Space, ARRL, and ARISS for the above information]

AMSAT Awards

AMSAT Director Contests and Awards, Bruce Paige, KK5DO says congratulations are in order for our latest AMSAT Awards recipients:

The following have entered into the Satellite Communicators Club for making their first satellite QSO.

+ Joseph Fouquet, N5JF
+ Mark Gearis, KG4JAG

The following have earned the AMSAT Communications Achievement Award.

+ Costantino Montella, IK8YSS, #551
+ Joseph Fouquet, N5JF, #552
+ Anthony Sirianni, KD8OEE, #553

The following have earned the South Africa Satellite Communications Achievement Award.

+ Costantino Montella, IK8YSS, #US180
+ Arnel Nebrida, DU2XXA, #US181
+ Anthony Sirianni, KD8OEE, #US182
+ Mark Gearis, KG4JAG, #US183

To see all the awards visit http://www.amsat.org. Bruce says this will finish up the AMSAT Awards for 2012. Get on the air and earn your AMSAT Award during 2013!

[ANS thanks AMSAT Director Contests and Awards, Bruce Paige, KK5DO for the above information]

PhoneSat CubeSat Now Rescheduled for February Launch from Wallops

The PhoneSat cubesat, originally planned for a December 2012 launch, now looks like it will fly aboard a new commercial rocket from Orbital Sciences Corp. Orbital's initial flight of the Antares-110 vehicle will carry PhoneSat into low earth orbit. The vehicle will be launched from a new launch pad LA-0A at Wallops Island, where the former Conestoga launch pad was located.

Phonesat carries an amateur radio payload on 437.425 MHz, has been chosen as one of the winners in the Aerospace category for the Popular Science magazine "Best of What's New 2012" awards.

PhoneSat is a technology demonstration mission consisting of three 1U CubeSats intended to prove that a smartphone can be used to perform many of the functions required of a spacecraft bus.

The satellite is built around the Nexus smartphone which will be running the Android operating system and will be enclosed in a standard 1U cubesat structure. The main function of the phone is to act as the Onboard Computer, but the mission will also utilize the phone's SD card for data storage, 5MP camera for Earth Observation, and 3-axis accelerometer and 3-axis magnetometer for attitude determination.

One of the nanosatellites, powered by the HTC Nexus One smartphone, will send back pictures of Earth. The other two, running on the Samsung Nexus S, will have two-way S-band radio allowing them to be controlled from Earth.

With a short lifetime of only about one week, the satellites have no solar cells and operate on battery only.

Also planned for this launch is the commercial DOVE-1 satellite for a technology demonstration nanosatellite based on the triple CubeSat

form factor. It's mission consists of:

+ Build a low-cost imaging satellite with non-space, COTS components.
+ Show that a bus constrained to the 3U cubesat form factor can viably host a small camera payload.
+ Demonstrate the ability to design, produce and operate satellites on short schedules and low cost.

Dove-1 plans to transmit its telemetry and image data to the ground on a proposed frequency of 145.825 MHz in the amateur radio band although this is a commercial mission.

[ANS thanks NASA, Gunter's Space Page, and AMSAT-UK for the above information]

TAPR DCC Videos Available Online

Gary Pearce, KN4AQ, says HamRadioNow (http://arvideonews.com/hrn/) recorded all of the 2012 Atlanta ARRL & TAPR Digital Communications Conference. The videos are posted in this link above.

The HamRadioNow netcasts appear in newest to oldest order on the web page. Scroll down to find these episodes from the 2012 DCC:

+ Episode 33 is a talk with TAPR President Steve Bible, N7HPR, about what TAPR is today (and what it's been), the DCC.

+ Episode 34 is Steve again with his lead-off talk on the ARISSat project's user survey.

+ Episode 35 has Scotty Cowling, WA2DFI, and Jeremy McDermond, NH6Z, reviewing this year's hardware and software updates to HPSDR - High Performance Software Defined Radio.

+ Episode 36 is more than a primer on SDR and FlexRadio's new 6000 series by FlexRadio's Stephen Hicks, N5AC.

+ Episode 37 has NW Digital Radio's Bryan Hoyer, K7UDR, and John Hays, K7VE, updating a pair of old ideas: a packet-hailing channel and AMPRNet44.

+ Episode 38 features Hessu Hannikainen OH7LZB, developer of the APRS.FI website describing development of an open-source server for the APRS-IS network that distributes APRS data worldwide.

Episode 44, added on December 27 is a video from the DCC presenting the design of a Handheld SDR by Chris Testa, KD2MBH.

TAPR says the DCC videos will also be viewable on the YouTube TAPR Digital Videos Channel:
http://www.youtube.com/user/TAPRDigitalVideo

[ANS thanks Gary Pearce, KN4AQ and TAPR for the above information]

STRaND-1 CubeSat Filmed by BBC Stargazing Live

AMSAT-UK reports on http://www.uk.amsat.org/?p=12039 about the BBC filming at the Surrey Space Centre (SSC) and Surrey Satellite Technology Limited (SSTL) for an item on the STRaND-1 CubeSat mission for the "Stargazing Live" program to be broadcast January 8-10.

Volunteers from the SSC and SSTL built STRaND-1 in their spare time.

The STRaND-1 spacecraft will carry an Amateur Radio AX.25 packet radio payload on 437.575 MHz. It will be the UK's first "PhoneSat" carrying a Nexus Android Smartphone that will run a number of Space Apps. In addition it will have both a Resistojet and a Pulsed Plasma Thruster (PPT) module.

The 'STRaND Data' App, one of the Space Apps that will run on the Smartphone was a spin-off of the work done by the AMSAT-UK FUNcube team. This App will collect satellite telemetry from within the satellite and display it graphically on the Nexus One Display. The display is observed by an on-board camera and the images transmitted to earth on Amateur Radio frequencies.

Pictures taken during the BBC filming can be seen at https://www.facebook.com/pages/Surrey-Space-Centre/147861435274871

STRaND-1 on Facebook https://www.facebook.com/nanosats

[ANS thanks AMSAT-UK for the above information]

Help Wanted: AMSAT News Service Rotating Editor Positions Available

The AMSAT News Service (ANS) is responsible for researching, writing, editing, and publishing the weekly amateur satellite news bulletins.

With the addition of a couple of volunteers this would generally involve taking a turn about every 3 to 4 weeks.

At present we a looking for interested satellite enthusiasts to join the ANS editorial team. Professional writing/editing experience is NOT a requirement. Your interest and enthusiasm in following and reporting on amateur radio in space will get you started! The ANS Editor team helps each other by rounding up items of interest. Plus we receive submitted items for publication ... so you won't be left all alone!

If you can commit to working on the bulletins for a week on a rotating basis please reply via e-mail to AMSAT News Service Editor Lee McLamb, KU4OS via ku4os at amsat.org.

[ANS thanks AMSAT Vice-President User Services, Gould Smith, WA4SXM for the above information]

First 24 GHz Contact Between USA and Japan

Al, W5LUA and Shichirou, JA6CZD made the first 24 GHz EME contact between the USA and Japan on January 2 at 1430Z. The two stations had about an hour of common window where each had 15 to 20 degrees of elevation.

JA6CZD uses a 2.4 M offset fed dish with a 22 watt SSPA. W5LUA uses a 2.4M offset fed dish and a TWT mounted on the feed support providing 100 watts at the feed. JA6CZD sent Al a 559 signal report and Al gave Shichirou a 449 report.

Both stations use linear polarity and must compensate for the 70 degrees of spatial offset between their locations. JA6CZD was used horizontal and Al used vertical polarization. The noise figure at both stations was under 2 dB.

Al measured his Doppler Shift with his return echoes at 51 KHz at the start of the contact. The mutual Doppler Shift placed both at about 24048.108 MHz based on a center frequency of 24048.100 MHz. This shifted down in frequency as the schedule took place.

W5LUA was GPS locked and JA6CZD uses an OCXO and a Rubidium standard to control frequency.

[ANS thanks Al Ward, W5LUA for the above information]

Kline School Posts AMSAT Announcement

The Kline School "Out of This World Experience" Raises $6500 for AMSAT Fox story, originally announced in the ANS-351 bulletins, now has some photos to accompany this event.
(See: http://amsat.org/pipermail/ans/2012/000675.html)

In conjunction with Kline School's ARISS contact on December 6 the students launched a Spell-A-Thon and raised $6,500 dollars for solar panels on Fox-1.

Kline School posted coverage of AMSAT's write-up at:
https://sites.google.com/a/klineschool.com/return-to-space/highlights
https://www.facebook.com/pages/Kline-School/153838291839
(plus you get a preview of page 5 of the January/February 2013 AMSAT Journal under production.)

[ANS thanks Kline School and The AMSAT Journal for the above information]

/EX

In addition to regular membership, AMSAT offers membership in the President's Club. Members of the President's Club, as sustaining donors to AMSAT Project Funds, will be eligible to receive additional benefits. Application forms are available from the AMSAT Office.

Primary and secondary school students are eligible for membership at one-half the standard yearly rate. Post-secondary school students enrolled in at least half time status shall be eligible for the student rate for a maximum of 6 post-secondary years in this status. Contact Martha at the AMSAT Office for additional student membership information. And with that, please keep in mind when Christmas was over Rudolph had a chance to do something he had wanted to do for a long time. He made an appointment with a plastic surgeon because he was so sensitive about his looks. However, it wasn't his glowing proboscis that he wanted changed. He was proud of his nose and the help he had given Santa because of it. No, he was sensitive about his long ears which were much more prominent than the ears of the average reindeer. So one week after Christmas, he underwent reconstructive surgery, and since that time, January 1st has been celebrated as ... New Ears Day.

73,
This week's ANS Editor,
JoAnne Maenpaa, K9JKM

3. Radio Meteor Obs. Bull. December 2012 Geminids

Newsgroup: rec.radio.amateur.space
Date: 2013-01-06 19:24:06 UTC
From: Chris Steyaert <observations@rmob.org>
Message-ID: <dpjje8t45ufjkehsm7dr6utqcfhel30go9@4ax.com>
Source record: 80
Cross-posted to: rec.radio.amateur.space,sci.astro.amateur

Radio Meteor Observation Bulletin No. 233 of December 2012 (81 K) is available now as

http://www.rmob.org/rmobtext/rmob1212.txt

More information and the visual presentation of the hourly forward scatter counts can be found on

http://www.rmob.org

Chris

4. Man who reloaded Filipino shooter's gun charged

Newsgroup: rec.radio.amateur.space
Date: 2013-01-07 14:20:35 UTC
From: Iran <tamarmadgecay@gmail.com>
Message-ID: <409e2a73-0728-4aae-8bfc-1c468783f131@googlegroups.com>
Source record: 81

Man who reloaded Filipino shooter's gun charged
http://adf.ly/2836760/feeds.cbsnews.com/~r/CBSNewsWorld/~3/Hf96Bfef01Q/

5. Weekly Highlights of Solar and Geomagnetic Activity, 31 December - 06 January 2013

Newsgroup: rec.radio.amateur.space
Date: 2013-01-07 16:30:09 UTC
From: SWPC.Webmaster@noaa.gov
Message-ID: <20130107163002.02D4633C53@panix2.panix.com>
Source record: 82
Cross-posted to: rec.radio.amateur.misc,rec.radio.amateur.dx,rec.radio.amateur.space,rec.radio.shortwave,rec.radio.info

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:Product: Weekly Highlights and Forecasts
:Issued: 2013 Jan 07 0251 UTC
# Prepared by the US Dept. of Commerce, NOAA, Space Weather Prediction Center
# Product description and SWPC contact on the Web
# http://www.swpc.noaa.gov/weekly.html
#
# Weekly Highlights and Forecasts
#
Highlights of Solar and Geomagnetic Activity
31 December - 06 January 2013

Solar activity ranged from very low to moderate. The summary period
began on 31 December with very low levels. Low levels were observed
on 01 January due to a single C1/Sf flare at 01/0906Z from Region
1640 (N28. L=323, class area Eho/360 on 06 January). A return to
very low levels existed on 02 January. Low levels returned on 03
January due to a single C1 event from Region 1640. 04 January
witnessed numerous C-class events, the largest a C2 long duration
event (LDE) from Region 1652 (N20, L=187, class area Dao/120 on 06
January) that began at 04/2346Z, peaked at 05/0018Z and ended at
05/0119Z. Associated with this event was a 170 sfu Tenflare. Earlier
on 04 January, Region 1639 (S16, L=311, class/area Dao/090 on 28
December) produced a C1 LDE that began at 04/0822Z, peaked at
04/0918 Z and ended at 04/1034Z. Associated with this event was a
coronal mass ejection (CME), first observed in STEREO A COR2 imagery
off the SE limb at 04/0924Z. Activity increased to moderate levels
due an impulsive M1 event observed at 05/0931Z from Region 1652. A
return to low levels was observed on 06 January. The largest event
on the 6th was a C3 event at 06/0303Z from Region 1653 (N09, L=185,
class/area Cso/030 on 06 January). By the end of the summary period,
a total of 14 spotted regions populated the visible disk.

No proton events were observed at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit was at
normal levels.

Geomagnetic field activity was quiet. Solar wind speed, measured at
the ACE spacecraft, ranged from a high of about 480 km/s at the
beginning of the period to a low of near 275 km/s late on 05
January. The interplanetary magnetic field (IMF) Bt ranged between 1
to 9 nT while the Bz component of the IMF varied between +7 to -6
nT. Phi angle was observed to be in a positive (away) orientation
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for a majority of the period. Intervals of negative (towards) orientation occured between 31/0000Z to 02/0445Z and again from about 06/1300Z through the end of the summary period.

Forecast of Solar and Geomagnetic Activity
07 January - 02 February 2013

Solar activity is expected to be at low levels with a chance for M-class activity through 18 January when active Regions 1650 (S29, L=194), 1652 (N20, L=187) and 1653 (N09, L=185) rotate off the disk. Very low to low levels are expected to persist through 21 January. >From 22 Janaury through the end of the outlook period, low levels are expected with a chance for M-class activity as old Region 1640 (N28, L=323) is due to return.

No proton events are expected at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit is expected to be at normal to moderate levels through the outlook period.

Geomagnetic field activity is expected to be at quiet to unsettled levels on 07 - 08 January due to the influence of a geoeffective CH HSS coupled with possible glancing blow effects from the 04 January CME. With the exception of 13 January, 20 - 21 January and 26 January when recurrent CH HSS are expected to become geoeffective, quiet conditions are expected to persist through the outlook period.

6. ANS-013 AMSAT News Service Weekly Bulletins

Newsgroup: rec.radio.amateur.space
Date: 2013-01-14 16:04:32 UTC
From: JoAnne Maenpaa <k9jkm@comcast.net>
Message-ID: <001e01cdf270$d1e72da0$75b588e0$@net>
Source record: 83
Cross-posted to: rec.radio.amateur.space,rec.radio.info

AMSAT NEWS SERVICE
ANS-013

ANS is a free, weekly, news and information service of AMSAT North America, The
Radio Amateur Satellite Corporation. ANS reports on the activities of a
worldwide group of Amateur Radio operators who share an active interest in
designing, building, launching and communicating through analog and digital
Amateur Radio satellites.

Please send any amateur satellite news or reports to:

ans-editor@amsat.org

In this edition:

* AMSAT Store Sells Out of Initial Supply of Broadband Preamps
* FITSAT-1 LED Schedules
* NASA Announces Student Internships for Summer
* Upcoming ARISS Contact Schedule

SB SAT @ AMSAT $ANS-013.01
ANS-013 AMSAT News Service Weekly Bulletins

AMSAT News Service Bulletin 013.01
From AMSAT HQ SILVER SPRING, MD.
Januray 3, 2013
To All RADIO AMATEURS
BID: $ANS-013.01

AMSAT Store Sells Out of Initial Supply of Broadband Preamps

The initial run of broadband preamps have been sold. We expect to have more
available relatively soon. The first few will be used to cover existing orders.
When they are available for purchase, they will be on the AMSAT store, and
announcements will be made though AMSAT media. Thanks to all who have ordered
them, and by doing so supported AMSAT operations!

[ANS thanks Alan, WA4SCA, for the above information]

FITSAT-1 LED Schedules

Flashing LED plan was based on the weather:

14th Jan. 04:57:30 - 04:59:30 UTC North Italy (10Hz Green)
14th Jan. 11:03:30 - 11:05:30 UTC Central USA (10Hz Green)
15th Jan. 22:27:30 - 22:29:30 UTC Wulmuqi China (10Hz Green)
17th Jan. 20:22:30 - 20:24:30 UTC Central India (10Hz Green)
19th Jan. 03:19:30 - 03:21:30 UTC North Italy (10Hz Green)

The magnitude of flashing NIWAKA has been observed to be approximately
7 to 8.
The light is faint.

The following web sites have additional FITSAT-1 information

http://www.fit.ac.jp/~tanaka/fitsat.shtml
http://www.jinkou-eisei.jp/FITSAT/index.html
http://www.ne.jp/asahi/hamradio/je9pel/fitsatle.htm

[ANS thanks Mineo, JE9PEL, for the above information]

NASA Announces Student Internships for Summer

College Level Internships

NASA says they are accepting applications for college level summer
internship
positions among several NASA field centers. "But don't wait until the
deadline," advises NASA mentor and fellow AMSAT member, Pat Kilroy,
N8PK. "The
opportunities to work on a CubeSat team, for example, are exciting but
pretty
competitive."

It is thought that students who know the "AMSAT way" and who have an
Amateur
Radio license and some hands on experience have a distinct advantage
in the
midst of such competition. "That worked for me," said Pat.

Students can view opportunities and apply for them in one place. To
start, the
prospective student should go to:

https://intern.nasa.gov/

then click the Student Opportunities tab then select Internships,
which will
bring you to the OSSI:NIFS page describing the overall internship
program.

Using the Search Opportunities tab from there,
scroll down to the bottom for the
"Enter keywords" box and enter "cubesat" without the quotes to view
the variety
of different opportunities in this field.

Pat Kilroy will be the lead mentor for two of the opportunities
described. The
first, under the title of "CubeSat Engineering Design Team Project,"
applicants
are called to develop a CubeSat spacecraft bus (i.e., the solar panel
and
battery charging, power regulation and distribution "EPS" subsystem,
the RF
communications "COM" subsystem, the command and data
handling/processing
avionics "C&DH" subsystem, the attitude determination and control
"ADAC"
subsystem, and the mechanical structures "MECH" subsystem) and one
instrument
(i.e., a camera/telescope payload). Hardware and software skills will
be well
represented. The team will need a student Systems Engineer as well.
Each intern
will consult with a NASA engineer in their area of specialty
throughout the
summer.

In the second, under the title "PICetSat Module
Development," one or two student
interns are called to perform any of a number of
tasks, including one to develop
a "dual-use" ground station for CubeSats and high-altitude balloon and
sounding
rocket experiments. This task will involve satellite and balloon
tracking, RF
systems, test equipment and antennas and antenna control automation.

Additional details are available on the OSSI:NIFS site including how
to contact
the lead mentor for technical questions, and the procedure on how to
apply for
one of these Goddard Greenbelt positions as well as many others.

High School Internship Applications at NASA

The application process for high school students to apply for a summer
internship can be found on the same OSSI:NIFS Web site as given above
for the
summer at one of many locations around the country. As noted in the
opportunity description already mentioned, up to two local high school
seniors

will be selected to participate on the CubeSat team in Greenbelt.

[ANS thanks NASA for the above information.]

Upcoming ARISS Contact Schedule

Saint Rose Elementary School, Saint John, New Brunswick, Canada,
direct via
VE9LC contact is a go for: Thu 2013-01-17 13:40:24 UTC 60 deg

All dates and times listed follow International Standard ISO 8061 date
and time
format YYYY-MM-DD HH:MM:SS

Note, all times are approximate. It is
recommended that you do your own orbital
prediction or start listening about 10 minutes before the listed time.

Total number of ARISS ISS to earth school events is 786.
Each school counts as 1 event.

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US Hams, don't forget that there is a new process for US school
proposals. For
US schools to have an ARISS contact, they must
fill out a proposal, submit it to
NASA, and see if they are approved or not. Once
a school is approved and put on
the list, an ARISS mentor will be assigned to assist the school.

NASA will have two open windows a year for
schools to submit a proposal.You must
go through NASA to get the proposal material. Contact Teaching From
Space, a
NASA Education office, at JSC-TFS-ARISS@mail.nasa.gov or by calling
them at
(281) 244-2320.

The following US states and entities have never had an ARISS contact:
Arkansas,
Connecticut, Delaware, Kansas, Louisiana, North Dakota, Rhode Island,
South
Dakota, Vermont, West Virginia, Wyoming, American
Samoa, Guam, Northern Marianas
Islands, and the Virgin Islands.

++++++++++++++++

QSL information may be found at:
http://www.arrl.org/frequently-asked-questions
http://www.rac.ca/ariss/oindex.htm#QSL's

ISS callsigns: DP ISS, NA1SS, OR4ISS, RS ISS

[ANS thanks Charlie, AJ9N, for the above information]

/EX

In addition to regular membership, AMSAT offers membership in the President's Club. Members of the President's Club, as sustaining donors to AMSAT Project Funds, will be eligible to receive additional benefits. Application forms are available from the AMSAT Office.

Primary and secondary school students are eligible for membership at one-half the standard yearly rate. Post-secondary school students enrolled in at least half time status shall be eligible for the student rate for a maximum of 6 post-secondary years in this status. Contact Martha at the AMSAT Office for additional student membership information.

73,
This week's ANS Editor,
Lee McLamb, KU4OS

7. Weekly Highlights of Solar and Geomagnetic Activity, 07 - 13 January 2013

Newsgroup: rec.radio.amateur.space
Date: 2013-01-14 16:30:09 UTC
From: SWPC.Webmaster@noaa.gov
Message-ID: <20130114163003.0CB7A33C68@panix2.panix.com>
Source record: 84
Cross-posted to: rec.radio.amateur.misc,rec.radio.amateur.dx,rec.radio.amateur.space,rec.radio.shortwave,rec.radio.info

```
:Product: Weekly Highlights and Forecasts
:Issued: 2013 Jan 14 0326 UTC
# Prepared by the US Dept. of Commerce, NOAA, Space Weather Prediction Center
# Product description and SWPC contact on the Web
# http://www.swpc.noaa.gov/weekly.html
#
# Weekly Highlights and Forecasts
#
Highlights of Solar and Geomagnetic Activity
07 - 13 January 2013

Solar activity was at low to moderate levels. Low levels were
observed on 07-10 January and again on 12 January. Moderate levels
were observed on 11 and 13 January. At the beginning of the period,
there were 12 numbered regions on the visible disk. Most of the
regions were relatively stable producing low level C-class flares.
The most magnetically complex spot group was Region 1652 (N17,
L=184, class/area Fkc/320 on 07 January); a Fkc/BG spot group. By
early 08 January, Region 1654 (N08, L=151, class/area Fki/1100 on 11
January) rotated around the NE limb. Both Regions 1652 and 1654 were
responsible for the majority of the C-class activity that occurred
through the rest of the period. By 11 January, moderate levels were
reached as Region 1654 produced two M-class flares; an M1 at 11/0911
UTC with associated Type II (537 km/s) and Type IV radio bursts and
an M1/1f at 11/1507 UTC. Other activity on 11 January included a 174
sfu Tenflare associated with a C1 flare from Region 1654 at 11/1846
UTC. Low levels returned on 12 January. By 13 January, moderate
levels returned as Region 1652 produced two M-class flares; an M1 at
13/0050 UTC and another M1 at 13/0838 UTC with associated Type II
(649 km/s) and Type IV radio sweeps as well as an Earth-directed
CME. First seen in STEREO-A COR2 imagery at 13/0909 UTC (estimated
speed of 371 km/s), the ejecta appeared in SOHO/LASCO imagery as a
faint halo beginning at 13/1236 UTC.

No proton events were observed at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit was at
normal levels.

Geomagnetic field activity was quiet for the majority of the period
through late on 13 January. The solar wind speed, measured at the
ACE spacecraft, ranged from 272 km/s to 375 km/s while the Bz
component of the interplanetary magnetic field (IMF) did not vary
much beyond +/- 5 nT. By late on 10 January, the phi angle changed
```

from predominantly negative (towards) to positive (away) indicative of a solar sector boundary crossing. By mid day on 13 January, solar wind speed began to increase from approximately 400 km/s to 510 km/s. An increase in temperature and total field strength (10 nT) was observed as a positive polarity coronal hole high speed stream became geoeffective. Unsettled periods were observed from 13/1800-2400 UTC.

Forecast of Solar and Geomagnetic Activity
14 January - 09 February 2013

Solar activity is expected to be at low to moderate levels until Region 1654 rotates around the west limb on 20 January. Very low to low levels are expected until Regions 1652 and 1654 return beginning on 31 January. A chance for M-class flares exists from 31 January through the end of the forecast period.

No proton events are expected at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit is expected to be at normal to moderate levels throughout the forecast period with possible high levels on 15-16 January and again on 19-20 January due to coronal hole high speed stream and CME effects.

Geomagnetic field activity is expected to be quiet to active on 14 January due to continued coronal hole high speed stream effects. Quiet levels are expected through mid-day on 17 January. By mid to late 17 January, a CME is expected to become geoeffective causing unsettled to active periods through 18 January. Conditions are expected to return to quiet levels by 19 January and continue until 09 February when a coronal hole high speed stream is expected to return.

8. Crossposting Permitted to rec.radio.amateur.moderated

Newsgroup: rec.radio.amateur.space
Date: 2013-01-15 07:00:02 UTC
From: rram@panix.com
Message-ID: <radio/ham-radio/moderated/crossposting-1-1358233201@panix.com>
Source record: 85
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.amateur.space,rec.radio.info

```
Posted-By: auto-faq 3.3.2 beta (PGPMoose V2.0, Perl 5.005)
Archive-name: radio/ham-radio/moderated/crossposting
Revision: 1.2 2011/11/02 04:08:53
Posting-Frequency: posted twice monthly
URL: http://www.panix.com/~rram/usenet/rram/index.html

Changes followed by "|".

After a 30-day public discussion and feedback period to gauge reader
opinions in March of 2009:

http://groups.google.com/group/rec.radio.amateur.moderated/browse_thread/thread/d7d337db35
f23326

the rec.radio.amateur.moderated Moderation Team had decided to consider |
amending its charter, and permit limited simultaneous crossposting to
rec.radio.amateur.moderated and one other unmoderated
amateur-radio-related discussion newsgroup. After a successful trial |
period (90 days, through early July 2009), we decided to adopt this |
change permanently. |

Approved rec.radio.amateur.* newsgroups are those that are currently
listed in the latest version of the "List of Big Eight Newsgroups" which
is crossposted monthly to news.announce.newgroups, news.groups, and
news.lists.misc.

Approved alt.radio.amateur.* and alt.ham-radio.* newsgroups are those
that have been created consistent with the suggestions in "So You Want
to Create an Alt Newsgroup" at:

http://www.faqs.org/faqs/alt-creation-guide/

Approved regional hierarchy newsgroups are those that contain either
"radio.amateur" or "ham-radio" in their names, including
uk.radio.amateur and aus.radio.amateur.misc.

We will make every reasonable effort to keep our list of approved
newsgroups up-to-date. In case we have overlooked any, and a submission
is rejected in error as a result, the rejected submitter can E-mail us
at our administrative contact address (in the signature at the bottom of
this article, and the default Reply-To for the rejection message)
requesting that it be added, and that the article be approved. We may
still choose to reject articles crossposted to any alt.* newsgroup with
an inappropriate name, including obscene language, embedded
name-calling, or encouragement of unlawful conduct.
```

Please direct any comments, questions, or criticisms to
rec-radio-amateur-moderated-request@panix.com.

9. 30 Years Ago: AMSAT/VITA Agreement to Develop PACSAT

Newsgroup: rec.radio.amateur.space
Date: 2013-01-19 01:24:19 UTC
From: "Paul W. Schleck" <pschleck@oasis.novia.net>
Message-ID: <50f98425$0$61560$540ea2cf@novia.net>
Source record: 86
Cross-posted to: rec.radio.amateur.moderated,rec.radio.amateur.space,rec.radio.amateur.digital.misc

-----BEGIN PGP SIGNED MESSAGE-----
Hash: SHA1

This is from a web-site that is replaying Usenet, including
net.ham-radio, from 30 years ago (currently early 1983). The site is:

http://www.olduse.net

If you prefer to use your own newsreader, the site also supports an NNTP
connection at:

nntp.olduse.net:119

>From: karn <utzoo!decvax!harpo!eagle!karn>
>Subject: Amsat/Vita agreement
>Newsgroups: net.ham-radio, net.space
>Date: Mon Jan 17 21:11:48 1983

Jan 14,1983 -- The Radio Amateur Satellite Corp. (AMSAT) and the
Volunteers In Technical Assistance (VITA) {note -- pronounce as
VI-TAH as in the word vital} have today announced their intent
to pursue a joint effort to develop a low-cost packet radio
satellite system called PACSAT.

VITA, headquartered in Rosslyn, VA, is a private, nonprofit
organization that supports people working on technical problems
in developing countries with technical information provided by
thousands of volunteer scientists, engineers and technologists.
The information and assistance VITA provides is aimed at helping
local people in developing countries to select and implement
technologies appropriate to their local situations.

VITA Director Henry Norman and VITA Project Coordinator Dr. Gary
Garriott (WA9FMQ) today announced that VITA has just awarded
AMSAT a $15,000 Design Definition Grant to support development of
PACSAT as a reliable low-cost digital satellite system to meet
requirements for communications of technical information on
renewable energy resources to and from their many field
locations. AMSAT's role in this joint activity will be to provide
hardware suitable for demonstration programs and to provide
technical assistance in developing a low-cost system. Part of
this effort will involve adapting solar power, amateur radio and
personal computer technology for use in the field, far removed
from any technical support.

AMSAT's PACSAT project manager Den Connors (KD2S) indicated that this grant will support initial PACSAT design definition activities which are being coordinated by AMSAT with work being done in some 15 locations around the world.

It is also of interest to note that WA9FMQ is a cousin of NASA astronaut Dr. Owen Garriott, W5LFL who may be amateur radio's first "space mobile" by operating from the Space Shuttle if a proposal submitted by AMSAT and ARRL is approved by NASA.

AMSAT
850 Sligo Ave.
Silver Spring, MD 20910

VITA
1815 North Lynn St.
Rosslyn VA 22209

-----BEGIN PGP SIGNATURE-----
Version: GnuPG v2.0.19 (FreeBSD)

iEYEARECAAYFAlD5g9cACgkQ6Pj0az779o5hIQCg0U+d+ll9294kray0pw219Bu2
+MIAnjK7ADXiG/flSjyBKVW+pxcNanFX
=bRuX
-----END PGP SIGNATURE-----

10. ANS-020 AMSAT News Service Weekly Bulletins

Newsgroup: rec.radio.amateur.space
Date: 2013-01-20 13:41:03 UTC
From: JoAnne Maenpaa <k9jkm@comcast.net>
Message-ID: <000e01cdf713$c5d8c710$518a5530$@net>
Source record: 87
Cross-posted to: rec.radio.amateur.space,rec.radio.info

AMSAT NEWS SERVICE
ANS-020

ANS is a free, weekly, news and information service of AMSAT North America, The Radio Amateur Satellite Corporation. ANS reports on the activities of a worldwide group of Amateur Radio operators who share an
active interest in designing, building, launching and communicating through analog and digital Amateur Radio satellites.

Please send any amateur satellite news or reports to:
ans-editor@amsat.org

In this edition:

* SKN on OSCAR 2013 Best Fist Nominations Due
* AMSAT-DC Workshop on Portable Satellite Ground Stations
* WIA Reports Australian Given an AMSAT Accolade
* WA8SME Preamps Back in Stock - ARRL SatCat for FT-817 Kit on Sale
* ARISS News, Successful Contacts, Proposal Window Closes Jan 28
* NASA Announces Student Internships for Summer
* Unilever Buys 22 Flights On XCOR Lynx Suborbiter For AXE Campaign
* Satellite Shorts From All Over
* European student codes reach ISS

SB SAT @ AMSAT $ANS-020.01
ANS-020 AMSAT News Service Weekly Bulletins

AMSAT News Service Bulletin 020.01
>From AMSAT HQ SILVER SPRING, MD.
DATE, 2012
To All RADIO AMATEURS
BID: $ANS-020.01

SKN on OSCAR 2013 Best Fist Nominations Due

Many thanks to all who participated in AMSAT's Straight Key Night on OSCAR 2013. If you have not already done so, please take a moment to nominate someone you worked for Best Fist. Remember, your nominee need not have the best fist of those you heard, only of those you worked. Send your nomination to w2rs at amsat.org.

This year's event is dedicated to the memory of John Thompson, W1BIH/PJ9JT, who passed away in 2012, aged 96. Although known primarily as an HF DXer and contester, John was also active on OSCAR, mostly on CW.

Those nominated will be recognized in an ANS bulletin in early February, and in The AMSAT Journal.

[ANS thanks Ray Soifer, W2RS for the above information]

AMSAT-DC Workshop on Portable Satellite Ground Stations

The AMSAT-DC Group is planning for a Spring Workshop 2013, to take place on Saturday, March 23, at the NASA Goddard Space Flight Center in Greenbelt, Maryland. It will be a nearly all-day event.

This is a workshop for those who wish to learn more about satellite operations and develop their own portable ground station. Participants will bring their wares to assemble, show, and explain to others that which will feature one or more of the following:

+ One's own laptop computer, with appropriate software installed, such as for satellite tracking, SDR receiver control, antenna control (optional), audio recording, time stamp track, and any of many other apps.

+ The FUNcube Dongle Pro receiver or equivalent. We will emphasize receiving only, and not the transmit side at this particular time.

+ One or more antennas for 146 MHz and 436 MHz, Arrow, Elk, or homebrew on a camera tripod, small mast, homebrew PVC, or handheld.

+ Everything, or almost everything, ought to be designed to be powered from a regulated 12-volt DC source of your choosing. A table will be provided with a shared 120VAC wall outlet within about 50 feet.

Volunteers are invited to join the planning committee (contact Pat at n8pk@amsat.org.) Registration information will be announced by February 15 via the AMSAT News Service (ANS), and on the AMSAT Calendar of Events under http://www.amsat.org

The workshop cost is expected to be low (for incidental items) or free to AMSAT members. Any non-US citizen who would like to attend must contact Pat by February 15 at the latest.

To volunteer or ask questions contact Pat at n8pk@amsat.org.

Links for antenna ideas:
http://arrowantennas.com/
http://www.elkantennas.com/
http://www.g6lvb.com/homebrewarrow.htm
http://www.amsat.org/amsat-new/information/faqs/crow/index.php
http://www.amsat.org/amsat-new/echo/Az_El_Pos.pdf
http://www.wa5vjb.com/references/Cheap%20Antennas-LEOs.pdf
http://www.amsat.org/amsat-new/tools/downloads/iROTOR.pdf
http://www.arrl.org/shop/The-ARRL-Satellite-Handbook/

http://ac6v.com/antprojects.htm

Links for software ideas:
http://www.amsat.org/amsat-new/tools/software.php
http://www.amsat.org/amsat-new/tools/
http://www.moetronix.com/spectravue.htm
http://www.amsat.org/amsat-new/information/faqs/resguide.pdf
http://sdrsharp.com/

Links for receiver ideas:
http://www.funcubedongle.com/
http://www.amsat.org/amsat/intro/sats_faq.html
http://tinyurl.com/cdo9tyo (Spectravue Configuration)
http://sdrsharp.com/

AMSAT-DC
http://patkilroy.com/amsat-dc/

[ANS thanks Pat Kilroy, N8PK, AMSAT Area Coordinator, Maryland-DC
for the above information]

WIA Reports Australian Given an AMSAT Accolade

It was a very humble Tony Hutchison VK5ZAI who received an award from AMSAT North America for the voluntary work he has done for the Amateur Radio on the International Space Station (ARISS) program.

In accepting the award, Tony VK5ZAI said it was a very nice honour which made him feel humble.

"I look at it as a combined effort for all those that have helped over the last 20 years because I couldn't have done it alone," he said.

In praise of ARISS, Tony VK5ZAI said, "They're a great group to work with and he has made many friends through it and amateur radio."

He is the Australian ARISS Coordinator and a Telebridge Earth Station involved in many contacts between the ISS and schools.

The Channel 7 Today Tonight show interviewed Tony VK5ZAI in early 2012, when he gave some great insights as to how Amateur Radio can provide support for NASA, as well as raise public awareness through the ARISS schools program.

The segment has been posted to YouTube and NOW features as a prelude to many Australian school contacts with the ISS.
http://www.youtube.com/watch?feature&#65533;ayer_embedded&v&#65533;soo_oaNkw

AMSAT's Award Citation to Tony stated, "For your support and leadership to ARISS as the key coordinator and mentor of all the ARISS schools in Australia. AMSAT also commends you for your sustained sup-

port as the premier ARISS telebridge station operator. Your efforts and can-do spirit are an inspiration to us all."

[ANS thanks the Wireless Institute of Australia and AMSAT-NA for the above information]

WA8SME Preamps Back in Stock - ARRL SatCat for FT-817 Kit on Sale

One of the AMSAT Store guys, Alan Biddle, WA4SCA reports the initial run of broadband preamps were sold out. This week Alan wrote, "The AMSAT Store now has the popular broadband preamps back in stock. They can be found on the top page at: http://store.amsat.org/catalog/ Thanks to all who have ordered them, and by doing so supported AMSAT operations!"

The QST October 2012 SatCat Interface for FT-817 is now on sale by the ARRL. The satellite computer aided tuning interface described in October, 2012 QST (pp. 40-43) for use with SatPC32 and the Yaesu FT-817 radio is being offered for sale by the ARRL Education & Technology Program (ETP).

The interface was developed by Mark Spencer, WA8SME, as part of resource development for the ARRL ETP and is priced to recover cost plus a small increment toward development as well as a cost share donation to AMSAT.

For more details of the kit, and to place your order go to: http://www.arrl.org/news/ft-817-satellite-interface-available-as-a-kit

[ANS thanks Alan Biddle, WA4SCA and the ARRL for the above information]

ARISS News

Recent succesful ARISS contacts include

Ecole Les Muriers, Saint Maur Des Fosses, France on 07 Jan.

The contact was direct between OR4ISS and F6KMX/p.
Saint-Maur-des-Fossés is a small city (77,000 people) located at about 15 km South-East of PARIS, separated from the capital by the large Vincennes Forest, and located on the top of a loop formed by the river Marne. The name of the city is inspired from the Chateau of Saint Maur, which was frequently visited by the queen Marie de Medicis in the 16th Century. The school Les Muriers is educating about 500 children in 17 classrooms, aged from 8 to 11 and preparing their access to Middle school. The children's of a classroom of 22 (CM2/ 5th grade) developed with their teacher, the dream of a direct contact, via ham radio, with an astronaut of the ISS. This year, the children are studying the life in space, working on the comprehension

of the Space Station and are participating to science and ham-radio activities organized by the Radio-club station of St-Maur (F6KMX).

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Missoula Family YMCA, Missoula, MT on 08 Jan.

Missoula Family YMCA hosted an ARISS contact January 8, 2013 at 16:14 UTC at Target Range School in Missoula, Montana. It was conducted in English and was direct between NA1SS and W7PX. Students talked to the crew aboard the ISS with the assistance of the Hellgate Amateur Radio Club and asked a pool of questions generated from the student winners of an essay contest. The students represent grades 3 - 9 and attend the following Missoula county schools; Target Range, Loyola, St. Josesph's, Russell, Hellgate Elementary, Lowell and Chief Charlo. The Missoula Family YMCA has been committed to incorporating academic programs to help students figure out their place in the world. We think of the ARISS contact as the real world application of our students' studies of science, technology, engineering and math (STEM). Our participation in the ARISS event can help us achieve this goal and continue to excite the interest in our youth and to promote NASA STEM activities. Missoula is located along the Clark Fork and Bitterroot rivers in Western Montana and at the convergence of five mountain ranges. Thus is often described as being the "Hub of Five Valleys". The 2010 Census put the population of Missoula at 66,788 and has been the second largest city in Montana. The city is also home to four high schools, five middle schools, sixteen elementary schools, two private schools and The University of Montana.

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An International Space Station school contact was completed by Royal Canadian Air Cadets- Newfoundland Cadet Detachment, St. John's, Newfoundland, Canada on 12 Jan. The contact was conducted in English and was direct between NA1SS and VO1BZM.

In preparation for the upcoming ARISS Contact Event, the cadets of 515 Air Cadets along with the local Air Cadet Squadrons focused on the aerospace portion of their training program. The Squadron's training staff added in extra classes in this subject area including lessons focused around various Canadian Astronauts to help familiarize the cadets with Chris Hadfield's career and background. We also encouraged the cadets in the squadrons to check out Col Hadfield's Facebook page and Twitter feed along with looking at various websites with lots of information about the International Space Station. We have canvassed the cadets over the last few weeks to develop the questions they will get to ask and in the coming weeks. They conducted a practice run through with those selected to ask questions. Everyone involved in this event was very enthusiastic and enjoyed the opportunity of participating in this as once in a life time learning event.

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An International Space Station school contact was successful with participants at Saint Rose Elementary School, Saint John, New Brunswick, Canada on 17 Jan. The contact was direct between NA1SS and VE9LC and was conducted in English.

Students in grades three to five from Saint Rose School excitedly prepared for their upcoming communication with International Space Station Canadian Commander, Chris Hadfield. In preparation for this educational event, they took part in a Saint John Astronomy Club presentation by Kurt Nason. A kick-off assembly with special guest Greg D'Entremont in Novemeber. At this assembly, SRS students met their ten Barnhill Memorial School partners who will be asking Commander Hadfield student created questions. In the month of December, each class worked on space projects linked to curriculum outcomes. Some classroom projects linked to the K-2 curriculum, You and Your World, while some students in grades 3-5 worked on Science connections individually, in small group, or as a class. Event day saw some of the projects highlighted. Their final lead-up event of the 2012 calendar year was December 17th when students enjoyed a presentation by UNBSJ Space Studies Professor, Phil Backman. The "Saint Rose School Space Walk" took place on January 9th. Students walked from classroom to classroom to observe projects, ask questionsof project creators, and selected the projects highlighted on eventday. The week culminated with the Science East Planetarium in the gymnasium that all students visited throughout the day for class presentations.

A video of the contact can be found at

http://tinyurl.com/a5fv8qk

The video is under “LifeStyle”,
Then, within LifeStyle, select “Misc.”
The title is “Students talk to Space Station”.

++++++++++++++++

NASA Teaching from Space is currently accepting proposals for ARISS contacts to be scheduled May-November 2013. Find details on requirements and submitting a proposal below. The current proposal window closes January 28.

US Hams, don’t forget that there is a new process for US school proposals. For US schools to have an ARISS contact, they must fill out a proposal, submit it to NASA, and see if they are approved or not. Once a school is approved and put on the list, an ARISS mentor will be assigned to assist the school.

NASA will have two open windows a year for schools to submit a proposal.You must go through NASA to get the proposal material. Contact Teaching From Space, a NASA Education office, at JSC-TFS-ARISS@mail.nasa.gov or by calling them at (281) 244-2320.

The following US states and entities have never had an ARISS contact: Arkansas, Connecticut, Delaware, Kansas, Louisiana, North Dakota, Rhode Island, South Dakota, Vermont, West Virginia, Wyoming, American Samoa, Guam, Northern Marianas Islands, and the Virgin Islands.

[ANS thanks ARISS and the ARRL for the above information]

NASA Announces Student Internships for Summer

College Level Internships

NASA says they are accepting applications for college level summer internship positions among several NASA field centers. "But don't wait until the deadline," advises NASA mentor and fellow AMSAT member, Pat Kilroy, N8PK. "The opportunities to work on a CubeSat team, for example, are exciting but pretty competitive."

It is thought that students who know the "AMSAT way" and who have an Amateur Radio license and some hands on experience have a distinct advantage in the midst of such competition.

"That worked for me," said Pat.

Students can view opportunities and apply for them in one place. To start, the prospective student should go to:

https://intern.nasa.gov/

then click the Student Opportunities tab then select Internships, which will bring you to the OSSI:NIFS page describing the overall internship program.

Using the Search Opportunities tab from there, scroll down to the bottom for the "Enter keywords" box and enter "cubesat" without the quotes to view the variety of different opportunities in this field.

Pat Kilroy will be the lead mentor for two of the opportunities described. The first, under the title of "CubeSat Engineering Design Team Project," applicants are called to develop a CubeSat spacecraft bus (i.e., the solar panel and battery charging, power regulation and distribution "EPS" subsystem, the RF communications "COM" subsystem, the command and data handling/processing avionics "C&DH" subsystem, the attitude determination and control "ADAC" subsystem, and the mechanical structures "MECH" subsystem) and one instrument (i.e., a camera/telescope payload). Hardware and software skills will be well represented. The team will need a student Systems Engineer as well. Each intern will consult with a NASA engineer in their area of specialty throughout the summer.

In the second, under the title "PICetSat Module Development," one or two student interns are called to perform any of a number of tasks, including one to develop a "dual-use" ground station for CubeSats and

high-altitude balloon and sounding rocket experiments. This task will involve satellite and balloon tracking, RF systems, test equipment and antennas and antenna control automation.

Additional details are available on the OSSI:NIFS site including how to contact the lead mentor for technical questions, and the procedure on how to apply for one of these Goddard Greenbelt positions as well as many others.

High School Internship Applications at NASA

The application process for high school students to apply for a summer internship can be found on the same OSSI:NIFS Web site as given above for the summer at one of many locations around the country. As noted in the opportunity description already mentioned, up to two local high school seniors will be selected to participate on the CubeSat team in Greenbelt.

[ANS thanks NASA for the above information.]

Unilever Buys 22 Flights On XCOR Lynx Suborbiter For AXE Campaign
by Staff Writers
Mojave CA (SPX) Jan 15, 2013

Commercial spaceflight is entering the main stream and looking (and smelling) quite good! United Kingdom-based Unilever Group, and Space Expedition Corporation (SXC) announced a 22 flight purchase on XCOR Aerospace's Lynx Mark II suborbital spacecraft for Unilever's space-themed AXEApollo campaign for the AXE brand of men's cologne, body spray, shower gels and other personal care products.

Unilever will award the first flight to a lucky winner selected from a drawing just after the Super Bowl on February 3rd, and the 21 other winners will come from a year long, 60 country promotional campaign.

That larger campaign includes a 100+ person December 2013 space camp for early stage winners in Orlando called the AXE Apollo Space Academy (A.A.S.A.).

The campaign also includes legendary Apollo astronaut Buzz Aldrin and a 30 second Super Bowl advertisement. For a chance to win, register at www.AXEApollo.com.

"When a global brand leader like Unilever makes a significant commitment to a product like our Lynx, it is a clear sign that commercial spaceflight has entered the main stream of worldwide commerce and truly is the Next Big Thing," stated Andrew Nelson, Chief Operating Officer of XCOR Aerospace, "Expect to keep seeing more good news from SXC as they ramp up in 2013!"

[ANS thanks space-travel.com for the above information]

European student codes reach ISS

European finalists.
Operating droids in space was no obstacle for a German-Italian alliance to reach the finish line of the Zero Robotics tournament. The European winners commanded mini-robots to dodge virtual dust clouds and rendezvous with disabled satellites, all in the weightlessness of the International Space Station.

This year's competition gave over 130 high-school students from across Europe the opportunity to operate droids in space by coding software.

Six alliances made of teams from Italy, Germany, Spain and Portugal witnessed how their computer codes worked in the Space Station from ESA's ESTEC space research and technology centre in the Netherlands

The RetroSpheres space game involved two mini-robots racing through a course using the least amount of fuel. During the three-minute programmed dance, the volleyball-sized spheres moved using 12 squirts of compressed gas.

Competitors could collect extra fuel from decommissioned satellites and deorbit the satellites for extra points while navigating through their opponent's dust clouds.

"It is really special to see what these students have created and get to operate their algorithms in space," said NASA's Kevin Ford on the Station. The astronaut, together with crewmate Tom Marshburn, set up the matches from Japan's Kibo laboratory.

The team with the most fuel left over in the European finals was the BEER alliance - the Brotherhood of Esteemed European Researchers. German and Italian high-school students developed the software that calculated the winning path for their robot in an exciting final game that demonstrated Newton's laws of motion.

Robotic future
The challenge to control these robots remotely began in the United States, where an adventurous professor from the Massachusetts Institute of Technology found inspiration from the Star Wars saga. The mini-spacecraft have been used on the Station since 2006 to try out manoeuvres.

ESA astronaut Andre Kuipers, who ran the competition from the Station last year, hosted the event from ESTEC. "Europe is embarking on robotic-related missions. Robots are and will be of great help in space," he noted.

Spacecraft fuel consumption - carbon dioxide in this case - was a programming issue for the students. "Most of us knew nothing about computer science before this competition. Teamwork and creative strategies helped us to succeed," explained Jaime Sevilla, one of the

Spanish players.

Teachers were pleased to see their pupils learn to communicate with each other, gaining technical knowledge and boosting their enthusiasm.

[ANS thanks Space Daily for the above information]

Satellite Shorts From All Over

+ Tom, K8TL reports a successful December 27 contact with Jari OH2FQV via FO-29. At 7170 km distance this may be a new distance record for this satellite. Tom noted was about a minute between AOS and LOS between the two stations.

+ Luis, EC4TR reports a successful contact between Spain and Brazil with Paulo, PV8DX via AO-7 mode B on January 11.

+ AMSAT-India invites interested satellite operators to view the A-I President's Message and 2012 Accomplishments in a presentation at: http://amsatindia.org/reports/AI-2012.pdf (via Nitin, VU3TYG)

+ The latest TAPR PSR Digital Journal for Autumn 2012 is now available at: http://www.tapr.org/psr/psr120.pdf

+ Ivo Klinkert, PA1IVO, has posted his article, "A Multi-purpose Portable Setup," on his web at:
http://ivok.home.xs4all.nl/pa1ivo/portable_satellite_setup.html
The article already appeared in the March 2012 issue of the AMSAT-DL

Journal and later in two issues of OSCAR NEWS (July and September 2012), but the on-line version includes more images.

+ In Series Five, Episode Twenty-Six, of the ICQ Amateur/Ham Radio Podcast Martin M1MRB reviews the Raspberry Pi Linux-based single board computer's uses for Amateur Radio:
http://tinyurl.com/ICQ-Podcasts-Pi

+ Here is a WebSDR receiver, located in Playa de Muchavista - Campello (Alicante - Spain), operated by EA5CV & EA5DOM which allows you to tune two microwave bands: 10.3 GHz and 2320 MHz:
http://maxiplaya.dyndns.org:8901/ (via Michel, F6HTJ)

+ Soyuz rockets will be taking Americans to ISS
http://tinyurl.com/baabs67 (via Space Daily)

+ China to launch 20 spacecrafts in 2013
http://tinyurl.com/al62yml (via Space Daily)

[ANS thanks everyone for the above information]

/EX

In addition to regular membership, AMSAT offers membership in the President's Club. Members of the President's Club, as sustaining

donors to AMSAT Project Funds, will be eligible to receive additional benefits. Application forms are available from the AMSAT Office.

Primary and secondary school students are eligible for membership at one-half the standard yearly rate. Post-secondary school students enrolled in at least half time status shall be eligible for the student rate for a maximum of 6 post-secondary years in this status. Contact Martha at the AMSAT Office for additional student membership information.

73,
This week's ANS Editor,
EMike McCardel, KC8YLD

11. Hot chick gets fucked after partying all night

Newsgroup: rec.radio.amateur.space
Date: 2013-01-20 16:34:54 UTC
From: Iran <tamarmadgecay@gmail.com>
Message-ID: <2b6eb280-60e2-4802-bcdb-a87d10b7d196@googlegroups.com>
Source record: 88

Hot chick gets fucked after partying all night http://t.co/xo00uUbA

12. Weekly Highlights of Solar and Geomagnetic Activity, 14 - 20 January 2013

Newsgroup: rec.radio.amateur.space
Date: 2013-01-21 16:30:11 UTC
From: SWPC.Webmaster@noaa.gov
Message-ID: <20130121163002.CCE9533C7E@panix2.panix.com>
Source record: 89
Cross-posted to: rec.radio.amateur.misc,rec.radio.amateur.dx,rec.radio.amateur.space,rec.radio.shortwave,rec.radio.info

```
:Product: Weekly Highlights and Forecasts
:Issued: 2013 Jan 21 0520 UTC
# Prepared by the US Dept. of Commerce, NOAA, Space Weather Prediction Center
# Product description and SWPC contact on the Web
# http://www.swpc.noaa.gov/weekly.html
#
# Weekly Highlights and Forecasts
#
Highlights of Solar and Geomagnetic Activity
14 - 20 January 2013

Solar activity was predominantly at low levels with very low levels
observed on 17 January. The largest flares of the period were a
C6/Sf flare at 14/0122 UTC from Region 1652 (N17, L=184, class/area
Fkc/320 on 07 January) and a C5/Sf flare at 18/1707 UTC from Region
1654 (N08, L=151, class/area Fki/1100 on 11 January). The C5 flare
had an associated Type II radio sweep (1695 km/s). On 16 January, a
long duration C2 flare was observed from Region 1650 (S30, L=193,
class/area Eho/250 on 07 January) which had decayed to plage by the
time of the event. A partial halo, coronal mass ejection (CME), with
the majority of the ejecta off the SW limb, was first seen in
SOHO/LASCO C2 imagery at 16/1900 UTC (estimated plane-of-sky speed
of 728 km/s). This event was likely associated with a filament
eruption near Region 1650.

A greater than 10 MeV proton enhancement was observed at
geosynchronous orbit beginning late on 16 January, peaked at 2 pfu
at 17/1415 UTC, and declined to background levels by approximately
18/0600 UTC.

The greater than 2 MeV electron flux at geosynchronous orbit was at
moderate levels on 14-16 January and again on 19-20 January. High
levels were observed on 17-18 January in response to a shock arrival
from the 13 January CME.

Geomagnetic field activity ranged from quiet to active levels. The
period began under the influence of a positive polarity coronal hole
high speed stream (CH HSS). Solar wind speeds increased from
approximately 480 km/s to 590 km/s early on 14 January, but started
to decrease by late on 14 January. The geomagnetic field responded
with quiet to unsettled levels with an isolated minor storm period
observed at high latitudes. As solar wind speeds continued to
decrease to around 400 km/s by early on 16 January, mostly quiet
conditions were observed. By 17 January, total field values (Bt)
```

increased to 16 nT while the Bz component of the interplanetary magnetic field switched from maximum values of approximately +10 nT to -14 nT indicative of the arrival of 13 January CME. The geomagnetic field responded with quiet to active levels with periods of active to minor storm levels at high latitudes. By mid-day on 18 January, total field had decreased to around 7 nT as the CME effects waned. By 19 January, a small shock was observed in ACE data at approximately 19/1647 UTC. A corresponding sudden impulse was observed in the Boulder magnetometer (21 nT) at 19/1733 UTC. The shock arrival was consistent with the arrival of a glancing blow from the 16 January CME. Only quiet to unsettled conditions were observed from 18-20 January with periods of minor storming on 20 January at high latitudes.

Forecast of Solar and Geomagnetic Activity
21 January - 16 February 2013

Solar activity is expected to be at very low to low levels until 30 January. A chance for M-class flares exists from 31 January through 15 February when Regions 1652 and 1654 return to the visible disk. By 16 February, very low to low levels are expected.

No proton events are expected at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit is expected to be at normal to moderate levels through 23 January. A chance for an increase to high levels on 24-25 January is expected due to CH HSS activity. A return to low normal levels is expected from 26 January through 09 February. Moderate to high levels are expected from 10-12 February due to activity from another CH HSS. Normal levels are expected again by 13 February through the end of the forecast period.

Geomagnetic field activity is expected to be mostly quiet through the forecast period with unsettled periods expected on 23 January and 9-10 February due to CH HSS effects.

13. Woman Sucking her man

Newsgroup: rec.radio.amateur.space
Date: 2013-01-22 15:27:05 UTC
From: Iran <tamarmadgecay@gmail.com>
Message-ID: <de18b3a8-10d8-4fb6-9402-223c4c37f3ec@googlegroups.com>
Source record: 90

Woman Sucking her man http://t.co/A6GfzkR0

14. ANS-027 AMSAT News Service Weekly Bulletins

Newsgroup: rec.radio.amateur.space
Date: 2013-01-27 02:03:27 UTC
From: JoAnne Maenpaa <k9jkm@comcast.net>
Message-ID: <002901cdfc32$34253370$9c6f9a50$@net>
Source record: 91
Cross-posted to: rec.radio.amateur.space,rec.radio.info

AMSAT NEWS SERVICE
ANS-027

ANS is a free, weekly, news and information service of AMSAT North America, The Radio Amateur Satellite Corporation. ANS reports on the activities of a worldwide group of Amateur Radio operators who share an active interest in designing, building, launching and communicating through analog and digital Amateur Radio satellites.

Please send any amateur satellite news or reports to:
ans-editor at amsat.org

In this edition:

* AMSAT-NA Website Outage
* K6GSJ Donates OSCAR-1 Historical Artifacts to ARRL Archives
* Open Source Satellite OSSI CubeSat Launch in April 2013
* IARU Satellite Coordination Board Says DOVE-1 Will Not Use 145.825
* Vote for Your Favorite Photos From Japan's PRISM Satellite
* February 14 PSLV-C20 Launch Planned by India
* Surrey Satellite Selected to Evaluate Small Satellites for GPS
* NASA History Program Office Summer 2013 Internships
* Satellite Shorts From All Over

SB SAT @ AMSAT $ANS-027.01
ANS-027 AMSAT News Service Weekly Bulletins

AMSAT News Service Bulletin 027.01
>From AMSAT HQ SILVER SPRING, MD.
January 27, 2013
To All RADIO AMATEURS
BID: $ANS-027.01

AMSAT-NA Website Outage

On or about 20 January 2013, AMSAT-NA's main web site www.amsat.org was compromised by an attacker, with the contents of the supporting database, including non-public information, posted on other publicly available web sites.

It is likely that the attacker gained enough access to the site to post arbitrary and possibly illegal content, so out of an abundance of caution the main site was shut down.

Neither the AMSAT store nor the Fox project web site were affected by this breach. The AMSAT Store is still open for business, and can be reached directly at http://store.amsat.org/catalog/

Mail services remain operational.

The main site was developed roughly 10 years ago by a AMSAT volunteers under a more benign Internet threat environment. The team that built that site is no longer associated with AMSAT, so work has been underway over the last several months to move to a modern, maintainable, secure infrastructure. This recent breach will accelerate that activity.

In the interim, www.amsat.org will have limited content.

[ANS thanks AMSAT's User Services Team for the above information]

K6GSJ Donates OSCAR-1 Historical Artifacts to ARRL Archives

The February 2013 QST Magazine carries a story on page 71 noting the donation of OSCAR-1 historical artifacts to the ARRL Historical Collections. Lance Ginner, K6GSJ, one of OSCAR-1's builders, donated documents, test data, reception reports, and media to preserve the pioneering work of Project OSCAR.

The archive also contains a vintage OSCAR Locator and the QST Cover Plaque Award presented to Edgar Hilton, W6VKP for his article on locating OSCAR.

The article notes the work by ARRL Museum Volunteer Custodians Michael Marinaro, WN1M, and Jonathan Allen, K2KKH, to catalog and preserve these materials for future historians.

Visitors to the ARRL Laboratory's Vintage Equipment Exhibit in Newington, CT can see and hear an operational prototype of OSCAR-1 transmitting its "HI" beacon on 145.080 MHz.

[ANS thanks the ARRL for the above information]

Open Source Satellite OSSI CubeSat Launch in April 2013

OSSI-1, the Open Source Satellite Initiative satellite, developed by Hojun Song DS1SBO, is planned to launch in the 2nd quarter of 2013 into a 575 km 63° inclination orbit on a Soyuz-2-1b rocket from the Baikonur launch facility in Kazakhstan. The 1U cubesat is 100% based on COTS components. The main payload, the Bion-M1 satellite, anticipates a planned launch date of April, 2013.

Reports say OSSI-1 will have a beacon in the 145 MHz band, a data communications transceiver in the 435 MHz band although actual operating frequencies have yet to be published. The data communications transceiver is reported to be using an open protocol, details have

not been released yet.

OSSI-1 also carries a 44 watt LED optical beacon to flash Morse Code messages to observers on Earth.

The development of the satellite has been documented on the Open Source Satellite Initiative Blog http://opensat.cc/blog/ and the Wiki http://opensat.cc/wiki/

Other cubesats on this launch will include:

+ SOMP - downlink on 437.485 MHz including CW, 1k2 and 9k6 BPSK, AX25 FSK, and AO40 standard 400bit/s BPSK.

+ BEESAT 2 - 4k8 GMSK on 435.950 MHz

+ BEESAT 3 - 4k8 GMSK on 435.950 MHz

+ Dove-2 - Commercial technology demonstration mission.

+ Bion-M1 - Research satellite collaboration between NASA and the Russian Institute of Biomedical Problems. The mission will launch an unmanned automated spacecraft carrying a biological payload into Low Earth Orbit (LEO). The rodents on the Bion-M1 spacecraft will be exposed to spaceflight conditions for approximately one month.

AMSAT-UK published photos and additional news at: http://www.uk.amsat.org/?p231

[ANS thanks AMSAT-UK for the above information]

IARU Satellite Coordination Board Says DOVE-1 Will Not Use 145.825

Dove-1, a technology development experiment to be launched to Low Earth Orbit on the inaugural launch of Antares in February, 2013 from Wallops Island, Virginia will no longer be using frequencies in the amateur radio bands based on information posted on the IARU satellite coordination web page for this mission.

The satellite had requested IARU coordination for a 1 watt transmitter on 145.825 MHz to downlink a 1200 baud AFSK AX.25 beacon with telemetry and health data.

The Wallops Launch also includes the PhoneSat cubesats into a planned 280 x 270km orbit at 51.6 deg inclination. Due to the extremely low orbit these satellites will reenter the Earth's atmosphere after approximately 2 weeks.

(See ANS-006 at http://amsat.org/pipermail/ans/2013/000681.html for details of the PhoneSat mission.)

IARU Amateur Satellite Frequency Coordination web page can be found at: http://www.amsat.org.uk/iaru/

[ANS thanks the IARU Satellite Frequency Coordination Board for the above information]

Vote for Your Favorite Photos From Japan's PRISM Satellite

PRISM, a nano-satellite developed by Intelligent Space Systems Laboratory, was launched on January 23rd 2009. It's mission is to take pictures of the Earth from outer space. 35 photos taken by PRISM's Wide Angle Camera have been selected by the PRISM team and posted at: http://www.smaster.jp/Sheet.aspx?SheetIDr633

Please take a look at the pictures and vote for your favorites. Enter your choices in the check-box above each photo - multiple selections are allowed.

PRISM also carries an orbital store-and-forward message box open for use by amateur radio operators. In PRISM's HAM Service FM packets uplinked are stored and available for download on future passes.

Downlink Frequency: 437.425 MHz FM, AFSK 1200, AX.25, UI Frames
Beacon Freequency: 437.250 MHz
Call Sign: JQ1YZW

Full details of Amateur Radio access to PRISM is documented at:
http://www.space.t.u-tokyo.ac.jp/prism/en/HAMservice_info.aspx
http://www.space.t.u-tokyo.ac.jp/prism/en/HAMservice_rule.aspx

You will find a pull-down menu at the bottom of this web page. Use the pull-down arrow to access "Agree" then click on the web page button also labeled "Agree". This will bring you to another web page revealing uplink frequency and message formats.

[ANS thanks Professor Nakasuka of the University of Tokyo and the PRISM Team for the above information]

February 14 PSLV-C20 Launch Planned by India

India's "The Hindu" newspaper reports that the Indian Space Research Organisation (ISRO) has slated its first launch of the year PSLV-CA (PSLV-C20) for February 14. This launch includes the SARAL ocean study spacecraft and satellites carrying amateur radio payloads.

The payload includes:

+ SARAL - Ka-band radar altimeter operating at 35.75 GHz.
See: http://smsc.cnes.fr/SARAL/

+ NEOSSat Search for near-Earth asteroids and space debris.

+ Sapphire – Canadian Department of National Defence first dedicated military satellite.

+ CanX-3a, BRITE (BRIght-star Target Explorer) • small satellite designed to make photometric observations of bright stars in order to study their variability.

+ TUGSat-1 - S-Band for telemetry downlinks and will have a 145 MHz CW beacon.

+ AAUSat 3 • 1U cubesat developed and constructed by students from Department of Electronic Systems at Aalborg University Denmark, testbed for a pair of AIS receivers. The IARU Amateur Radio coordinated frequency is 437.425 MHz using Viterbi and Reed Solomon encoding.

+ Max Valier • Small satellite to encourage student experimentation. IARU Amateur Radio coordinated frequencies are 145.860 MHz and 145.960 MHz.

Full details and links to the satellite team web pages are posted on the AMSAT-UK web at: http://www.uk.amsat.org/?p180

Read the Hindu article at: http://tinyurl.com/TheHindu-PSLV (www.thehindu.com)

Zarya Launches and Orbital Operations Calendar
http://www.zarya.info/Calendar.php

[ANS thanks AMSAT-UK for the above information]

NASA History Program Office Summer 2013 Internships

The NASA History Program Office is seeking undergraduate and graduate students for summer 2013 internships. The History Program Office maintains archival materials to answer research questions from NASA personnel, journalists, scholars, students at all levels and others from around the world. The division also edits and publishes several books and monographs each year. It maintains a large number of websites on NASA history.

Students of all majors are welcome to apply. While detailed prior knowledge of the aeronautics and space fields is not necessary, a keen interest and some basic familiarity with these topics are needed. Strong research, writing and editing skills are essential. Experience with computers, especially hypertext markup language, or HTML, formatting, is a plus.

Intern projects are flexible. Typical projects include handling a variety of information requests, editing historical manuscripts, doing research and writing biographical sketches, updating and creating websites, and identifying and captioning photos.

Applications for summer 2013 internships are due Feb. 4, 2013.

For more information, visit http://history.nasa.gov/interncall.htm.

If you have questions about this opportunity, please contact Bill Barry at bill.barry@nasa.gov.

[ANS thanks NASA Education Express Message of Jan. 24, 2013 for the above information]

Surrey Satellite Selected to Evaluate Small Satellites for GPS

An article posted on the GPS Daily website says the US Air Force Research Laboratory (AFRL) has selected Surrey Satellite Technology US LLC (SST-US) to investigate cost reduction and augmentation of the current GPS constellation through the application of the small satellite approach. (Full article at: http://tinyurl.com/Surrey-GPS)

SST-US will examine how constellations of smaller satellites could improve the overall system performance and resilience, including ways to deliver high-power signals and alternative architectures for rapid commanding that could provide system capability improvement.

Small satellites have become the focus of many institutional programs in recent years, as they have become ever more capable and demonstrated their importance.

[ANS thanks GPSDaily.Com for the above information]

Satellite Shorts From All Over

+ Free NASA Calendar in PDF format with imagery from the ISS is posted at: http://www.nasa.gov/pdf/716960main_iss_calendar_2013.pdf

+ An animation showing UKube-1 CubeSat on-orbit and its payload is posted at: http://www.uk.amsat.org/?p334. UKube-1 is slated to launch in the 2nd/3rd quarter of 2013 on a Soyuz-2 along with TechDemoSat-1. UKube-1 will carry a set of AMSAT-UK FUNcube boards to provide an amateur radio 435/145 MHz linear transponder and a 1200 bps BPSK beacon for educational outreach.

+ Tom Doyle, W9KE has released 'Satellite Explorer', a Windows 8 app that runs on Intel based tablets, laptops and desktops as well as Windows RT tablets like the Microsoft Surface. It is available in the Windows Store - search for 'Satellite Explorer'. The app is free but if you find it of value please contribute something to your favorite AMSAT project. Watch a preview at: https://www.youtube.com/watch?v=-jPjpDoYs (W9KE)

+ The 2013 SA AMSAT Space Symposium will be held at the Innovation Hub in Pretoria on 18 May 2013. The theme of the conference is "Space - a challenging Amateur Radio frontier". If you are planning to submit a paper please send in a brief synopsis of the pro-

posed paper by 31 January to saamsat@intekom.co.za. For more information visit www.amsatsa.org.za.

+ Enjoy an excerpt from "An Astronaut's Guide to Space Etiquette" at: http://www.space-travel.com/reports/An_Astronauts_Guide_999.html Scroll down about halfway down the page. (Space-Travel.com)

+ AMSAT-NA congratulates Martha Saragovitz on her 35th anniversary as our office manager in Silver Spring, Maryland. Please send her your greetings and congratulations to martha@amsat.org!

+ Professor Sir Martin Sweeting G3YJO appeared on Monday's BBC Radio 4 show For All Mankind in which Chris Riley examined the enduring legacy of the Apollo moon missions. In the interview Martin G3YJO mentions the first UOSAT's (OSCAR-9 and 11). You can hear him at 08:52 into the recording which is at: http://www.bbc.co.uk/programmes/b01pcqkk It is understood the recording will be available until January 28.

+ The Australian Geographic website features an article on Australia's first amateur satellite, Australis-OSCAR-5 which was launched on 23 January 1970. See: http://tinyurl.com/Australia-AO5 (www.australiangeographic.com.au)

+ SpaceMart.com posted an article, "Phoenix Rising: New Video Shows Advances in Satellite Repurposing Program" at: http://tinyurl.com/DARPA-Phoenix (SpaceMart.com) DARPA's Phoenix program plans to repurpose retired satellites while they remain in orbit. The article contains a link to an HD video simulation posted by DARPA.

+ Thursday, January 31 at 8PM Eastern (UTC-5) will be the last Hudson Valley Satcom Net until further notice. The radio link is via the MBARC Repeater on 146.970 MHz and on Echolink on the N2EYH-L node. (Stu, WA2BSS)

[ANS thanks everyone for the above information]

/EX

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Primary and secondary school students are eligible for membership at one-half the standard yearly rate. Post-secondary school students enrolled in at least half time status shall be eligible for the student rate for a maximum of 6 post-secondary years in this status. Contact Martha at the AMSAT Office for additional student membership information. And with that, please keep in mind the young ham who

was practicing the violin in the living room while his father was trying to read in the den. The family dog was lying in the den, and as the screeching sounds of little Harold's violin reached his ears, he began to howl loudly. The father listened to the dog and the violin as long as he could. Then he jumped up, slammed his paper to the floor and yelled above the noise, "For Pete's sake, can't you play something the dog doesn't know?!"

73,
This week's ANS Editor,
JoAnne Maenpaa, K9JKM

15. WSR-028 AMSAT Weekly Satellite Report

Newsgroup: rec.radio.amateur.space
Date: 2013-01-27 02:16:20 UTC
From: JoAnne Maenpaa <k9jkm@comcast.net>
Message-ID: <002c01cdfc33$fd0160b0$f7042210$@net>
Source record: 92
Cross-posted to: rec.radio.amateur.space,rec.radio.info

```
This report is organized into four (4) parts.
Part 1 (S1) - operational analog amateur satellites
Part 2 (S2) - operational digital amateur satellites
Part 3 (S3) - non - operational satellites
Part 4 (S4) - deborbited/returned satellites

SB SAT @ AMSAT W8ISS $WSR-028.S1
WSR 028 Part 1 01/28/2013

AMSAT NEWS SERVICE BULLETIN 028.S1
FROM AMSAT HQ SILVER SPRING, MD, January 28, 2013
TO ALL RADIO AMATEURS
BID: $WSR-028.S1

PW-Sat
Catalog Number: 38083
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: On Orbit

Uplink: 435.020 MHz FM
Downlink: 145.900 MHz DSB

Beacon:

Callsign:

URL:

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=132
[01282013]
=====
DO-64 Delfi-C3
Catalog number: 32789
Launch Date: April 28, 2008 0354z
Launch site: Satish Dhawan Space Centre, India

Status: Operational
Current Mode: Science Mode - Beacon ONLY

Telemetry: 145.870 MHz

Downlink: 145.880 to 145.920 MHz
Uplink: 435.530 to 435.570 MHz
```

Delfi-C3 web page: http://www.delfic3.nl/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=68
[01282013]
=====
VO-52 HAMSAT
Catalog number: 28650
Launch Date: May 05, 2005 0444z
Launch site: Satish Dhawan Space Centre, India

Status: Operational
Current Mode: U/v - Dutch Transponder

Frequencies:
Indian Transponder:
Uplink: 435.220 to 435.280 MHz LSB/CW
Downlink: 145.930 to 145.870 MHz USB/CW

Dutch Transponder:
Uplink: 435.225 to 435.275 MHz LSB/CW
Downlink: 145.925 to 145.875 MHz USB/CW

Indian Beacon: 145.9360 MHZ CW
Dutch Beacon: 145.860 MHz 12WPM with CW message

Mode and Antenna Polarization:
V: LHCP
U: RHCP

Official Webpage: http://www.amsatindia.org/hamsat.htm

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=30

To know what transponder is switched on please listen for the beacon
that is active. Each transponder has a different beacon.
[01282013]
=====
SO-50 SAUDISAT-1C
Catalog number: 27607
Launch date: December 20, 2002 1700z
Launch site: Baikonur, Kazakhstan

Status: Operational

Current Mode: V/u

Uplink: 145.850 MHz FM - 67.0 Hz PL tone
Downlink: 436.795 MHz

Mode and Antenna Polarization:
V: Linear
U: Linear

Official Webpage: http://saudisat.kacst.edu.sa/index.shtml
(not up and running currently)

To switch the transmitter on, you need to send a CTCSS tone of 74.4
Hz. The order of operation is thus: (allow for Doppler as necessary):
1) Transmit on 145.850 MHz with a tone of 74.4 Hz to arm the 10 minute
timer on board the spacecraft.
2) Now transmit on 145.850 MHz (FM Voice) using 67.0 Hz to PT the re-
peater on and off within the 10 Minute window.
3) Sending the 74.4 tone again within the 10 minute window will reset
the 10 minute timer.
[01282013]
=====
FO-29 JAS-2
Catalog number: 24278
Launch Date: August 17, 1996

Status: Operational
Current Mode: V/u (Mode JA)

Voice/CW (Mode JA)
Uplink: 145.90 to 146.00 MHz CW/LSB
Downlink: 435.80 to 435.90 MHz CW/USB
Beacon: 435.795 MHz

Digital Mode JD
Uplinks: 145.850 MHz FM
145.870 MHz FM
145.910 MHz FM
Downlink: 435.910 MHz 1200-baud BPSK or 9600-baud FSK
Callsign: 8J1JCS
Digitalker: 435.910 MHz

Mode and Antenna Polarization:
V: RHCP
U: RHCP

For current operational schedule for FO-29:
http://www.ne.jp/asahi/m-arai/gkz/satinfo/fo29e.htm

JARL English webpage:
http://www.jarl.or.jp/English/5_Fuji/ejasmenu.htm

AMSAT-NA Webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID
=5&retURL=/satellites/status.php

Mineo Wakita, JE9PEL, has created a simple decoder program for FO29's
CW telemetry downlink: http://www.ne.jp/asahi/hamradio/je9pel/
fo29cwts.htm
[01282013]
=====
AO-7 AMSAT OSCAR 7
Catalog number: 07530

Launch Date: November 15, 1974
Launch site: Vandenberg AFB, California, USA

Status: Operational

Current Mode: Alternating between Mode A and B every 24 hours

Uplink: 145.850 to 145.950 MHz CW/USB Mode A
432.125 to 432.175 MHz CW/LSB Mode B
Downlink: 29.400 to 29.500 MHz CW/USB Mode A (1W PEP)
145.975 to 145.925 MHz CW/USB Mode B (8W PEP)
145.975 to 145.925 MHz CW/USB Mode C (2W PEP)
Beacons: 29.502 MHz CW
145.972 MHz CW
435.100 MHz CW
2304.100 MHz CW

Official Webpage:
http://www.amsat.org/amsat-new/satellites/sat_summary/ao7.php
[01282013]
=====
INTERNATIONAL SPACE STATION (ISS) - ARISS
Catalog number: 25544
Launch date: November 20, 1998 0640z (ZARYA module)
Launch sites: Baikonur, Kazakhstan
Kourou, French Guiana
Uchinoura Space Center, Japan
Kennedy Space Center, Titusville, Florida, USA

Status: Operational

Current Active Modes: FM Repeater - OFF
Voice - V/v
BBS - V/v
2m APRS - V/v
2m Digi - V/v
70cm APRS - ?
70cm Digi - ?
SSTV - V/v

Expedition 34 Crew (November 2012 - March 2013):
Commander: Kevin Ford KF5GPP
Flight Engineer: Oleg Novitskiy
Flight Engineer: Evgeny Tarelkin
Flight Engineer: Roman Romanenko
Flight Engineer: Chris Hadfield KC5RNJ/VA3OOG
Flight Engineer: Tom Marshburn KE5HOC

Available Modes and Frequencies:
Digital/APRS:
Worldwide 2m packet uplink: 145.825 MHz FM 1k2
Worldwide 2m packet downlink: 145.825 Mhz FM 1k2
Worldwide 70cm packet uplink: 437.550 Mhz FM 1k2

Worldwide 70cm packet downlink: 437.550 Mhz FM 1k2

Voice:
Region 1 voice uplink: 145.200 MHz FM
Region 2/3 voice uplink: 144.490 MHz FM
Worldwide downlink: 145.800 MHz FM

Crossband Repeater:
Repeater Uplinks: 1269.650 MHz FM
437.800 MHz FM
145.990 MHz FM - 67.0 PL (Kenwood)
Repeater Downlink: 145.800 MHz FM
437.800 MHz FM (Kenwood)

SSTV Robot 36:
Downlink: 145.800 MHz FM

Mode and Antenna Polarization:
V: Linear
U: Linear

Callsigns:
Belgian: OR4ISS
German: DP0ISS
Russian: RS0ISS
RZ3DZR
United States: NA1SS
2m Packet Mailbox: RS0ISS-11
2m Digipeater alias: ARISS
70cm Packet Mailbox: RS0ISS-1
70cm Digipeater callsign: RS0ISS
70cm Digipeater alias: ARISS

Official ARISS Webpage: http://www.rac.ca/ariss
ISS Fan Club Webpage: http://www.issfanclub.com
APRS tracking page: http://www.ariss.net/

ISS Daily Crew Schedule: http://spaceflight.nasa.gov/station/timelines
Remember that the crew operates on UTC time. Also, all of the time
line is NOT translated from Russian and posted.
[01282013]
NNNN
/EX

SB SAT @ AMSAT W8ISS $WSR-028.S2
WSR 028 Part 2 01/28/2013

AMSAT NEWS SERVICE BULLETIN 028.S2
FROM AMSAT HQ SILVER SPRING, MD, January 28, 2013
TO ALL RADIO AMATEURS
BID: $WSR-028.S2

Fitsat-1
Catalog number: 38853
Launch Date: October 04, 2012
Launch site: Kibo Japanese Experiment Module, International Space
Station

Status: Operational

Uplink:
Downlink(s): 437.445MHz 1k2 AFSK
5840.00 MHz 115k2 data
LED CW (200w pulses)

Beacon(s): 437.250 MHz CW

Callsign: NIWAKA

URL: http://carpcomm.com/satellite/fitsat1
[10292012]
=====
TechEdSat
Catalog number: 38854
Launch date: October 04, 2012
Launch site: Kibo Japanese Experiment Module, International Space
Station

Uplink(s):
Downlink(s): 437.465 1k2 AFSK

Beacon(s):

Callsign:

URL:http://www.techedsat.com/
[10152012]
=====
We Wish
Catalog number: 38856
Launch date: October 04,2012
Launch Site: Kibo Japanese Experiment Module, International Space
Station

Uplink(s):
Downlink(s): 437.505MHz 1k2 AFSK
437.505MHz SSTV

Beacon(s): 437.505MHz CW

Callsign: JQ1ZIJ

URL:
[10152012]
=====
F-1
Catalog number: 38855

Launch Date: October 04, 2012
Launch Site: Kibo Japanese Experiment Module, International Space
Station

Uplink(s):
Downlink(s): 145.980MHz 1k2 AFSK
437.485MHz FM moduled CW

Baecon(s):

Callsign: XV1VN

URL: http://fspace.edu.vn/
[10152012]
=====
Aeneas
Catalog Number: 38760
Launch Date: September 13, 2012 2139z
Launch Site: Wallops Island, Virginia, USA

Status: On Orbit

Uplink: WiFi 2425MHz
Downlink:
WiFi: 2425MHz
Spread Spectrum: Somewhere in the 70cm band

Beacon: 437.600MHz 1k2 ax25 every 10 seconds

Callsign:

URL:
[10012012]
=====
Cinema
Catalog Number: 36764
Launch Date: September 13, 2012 2139z
Launch Site: Wallops Island, Virginia, USA

Status: On Orbit

Uplink:
Downlink:
Engineering: 2400 - 2450MHz
Telemetery: 2200 - 2300MHz

Beacon:

Callsign:

URL:
[10012012]
=====
CSSWE (Colorado Student Space Weather Experiment)
Catalog Number: 38761

Launch Date: September 12, 2012 2139z
Launch Site: Wallops Island, Virginia, USA

Status: On Orbit

Uplink:
Downlink: 437.345MHz 9k6 with ax.25

Beacon:

Callsign:

URL:
[10012012]
=====
CP5 (Polysat)
Catalog Number: 38763
Launch Date: September 12, 2012 2139z
Launch Site: Wallops Island, Virginia, USA

Status: On Orbit

Uplink:
Downlink: 437.405MHz AFSK on LSB ax.25 over NRZI at 1k2 baud,
every 2
minutes, begins 3.5 hours after first turn-on

Beacon:

Callsign:

URL:
[10012012]
=====
CXBN (Cosmic X-Ray Background Nanosatellite)
Catalog Number: 38762
Launch Date: September 12, 2012 2139z
Launch Site: Wallops Island, Virginia, USA

Status: On Orbit

Uplink:
Downlink: 437.525MHz GFSK ax.25

Beacon:

Callsign:

URL:
[10012012]
=====
Proiteres
Catalog Number: 38756
Launch Date: September 09, 2012 2139z
Launch Site: Satish Dhawan Space Centre, India

Status: On Orbit

Uplink:
Downlink: 437.485MHz FM/AFSK

Beacon:

Callsign: JL3YZK

URL:
[10012012]
=====
RS-40 MiR (Yubileiny-2)
Catalog Number: 38735
Launch Date: July 28, 2012
Launch Site: Plesetsk Missile and Space Complex, Russia

Status: On Orbit

Uplink:
Downlink(s): 435.265 MHz
435.365 MHz

Beacon:

Callsign:

URL:
[08272012]
=====
HORYU-II
Catalog number: 38340
Launch Date: May 17, 2012 1639z

Status: On Orbit

Uplink: 145.??? MHz
Downlink: 437.375 MHz CW/AX25/FSK

Beacon: 437.375 MHz CW

Callsign: JG6YBW

URL:

IARU Coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=216
[10012012]
=====
XaTcobeo
Catalog Number: 38082
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: Operational

Uplink:
Downlink: 437.365 MHz FFSK with AX.25

Beacon:

Callsign:

URL:

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=135
[100162012]
=====
UniCubeSat
Catalog Number: 38085(?)
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: Operational

Uplink:
Downlink: 437.305 MHz 9k6 bps GMSK

Beacon:

Callsign:

URL:
http://www.gaussteam.com/index.php?option=com_content&view=article&id=
96:unicu
besat&catid=36:unicubesat&Itemid=183

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=133
[10012012]
=====
Robusta
Catalog Number: 38083(?)
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: On Orbit

Uplink:
Downlink: 437.325 MHz 1k2 FM telemetry (data every 3 min, 20 sec.
burst)

Beacon:

Callsign:

URL:

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=122
[10012012]

=====
MO-72 MaSat-1
Catalog Number: 38081
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: Operational

Uplink:
Downlink: 437.345 MHz GFSK 625/1250 bps
437.345 MHz CW

Beacon:

Callsign:

URL:

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=126
[10012012]
=====
Goliat
Catalog Number: 38084(?)
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: Operational

Uplink:
Downlink: 437.485 MHz 1k2 AFSK

Beacon:

Callsign:

URL:

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=98
[10012012]
=====
E-St@r
Catalog Number: 38079
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: On Orbit

Uplink:
Downlink: 437.445 MHz 1k2 bps AFSK

Beacon:

Callsign:

URL:

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=130
[10012012]
=====
ALMASat-1
Catalog Number: 38078
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: On Orbit

Uplink:
Downlink: 437.465 MHz 1k2 bps FSK
2407.850 MHz

Beacon:

Callsign:

URL:

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=39
[10012012]
=====
RS-39 Chibis-M
Catalog Number: 38051
Launch Date: October 30, 2011 10:11:00 UTC
Launch site: Tyuratam (Baikonur Cosmodrome), Kazakhstan

Status: Operational

Uplink:
Downlink:

Beacon: 435.315 MHz CW
435.215 MHz CW

Callsign:

URL:

IARU coordination status page:
[07302012]
=====
JUGNU
Catalog Number: 37839
Launch Date: October 12, 2011 05:30:00 UTC
Launch site: Satish Dhawan Space Centre, India

Status: On Orbit

Uplink: 145.??? MHz 1k2 (mode?)
Downlink: 437.505 MHz 9k6 (mode?)

Beacon: 437.275 MHz 15 wpm (?) CW

Callsign:

URL: http://www.iitk.ac.in/me/jugnu/index.htm

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=160
[07092012]
=====
SRMSAT
Catalog Number: 37841
Launch Date: October 12, 2011 05:30:00 UTC
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Uplink: 145.900 MHz 1k AX.25 (speed?)
Downlink: 437.500 MHz 2k4 AX.25

Beacon: 437.425 MHz 12 wpm CW

Callsign:

URL: http://srmsat.in/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=181
[01282013]
=====
HRBE (E1P Explorer 1 [Prime] CubeSat (E1P-U2))
Catalog Number: 37855
Launch Date: October 28, 2011
Launch site: Vandenberg Air Force Base, California, USA

Status: On Orbit

Uplink: 437.305 MHz (???)
Downlink: 437.505 MHz AX.25 (SSB?)

Beacon:

Callsign:

URL: http://ssel.montana.edu/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=116
[01122012]
=====
M-Cubed
Catalog Number: 37855
Launch Date: October 28, 2011
Launch site: Vandenberg Air Force Base, California, USA

Status: On Orbit

Uplink:
Downlink: 437.485 MHz AX.25

Beacon:

Callsign:

URL: http://umcubed.org/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=215
[01122012]
=====
RAX-2
Catalog Number: 37853
Launch Date: October 28, 2011
Launch site: Vandenberg Air Force Base, California, USA

Status: Operational

Uplink:
Downlink: 437.345MHz 9k6 GMSK

Beacon:

Callsign:

URL: http://rax.engin.umich.edu//

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=221
[03232012]
=====
AO-71 AubieSat-1
Catalog Number: 37854
Launch Date: October 28, 2011
Launch site: Vandenberg Air Force Base, California, USA

Status: On Orbit

Uplink:
Downlink: 437.475 MHz 1k2 AX.25

Beacon: 437.475 MHz CW

Callsign: KI4NQO

URL: http://www.space.auburn.edu/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=148
[12262011]
=====
O/OREOS
Catalog Number: 37224
Launch Date: November 20, 2010

Launch site: Kodiak Launch Complex, Alaska, USA

Status: On Orbit

Uplink:
Downlink: 437.035 MHZ AX.25

Beacon:

Callsign:

URL: http://www.ooreos.org/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=146
[02092011]
=====
Rax-1 Radio Aurora Explorer
Catalog Number: 37223
Launch Date: November 20, 2010
Launch site: Kodiak Launch Complex, Alaska, USA

Status: On Orbit

Uplink:
Downlink: 437.505 MHz 9k6 GMSK

Beacon:

Callsign: RAX-1

URL: http://rax.engin.umich.edu/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=165
[02092011]
=====
FO-69 Fastrac-1 Sara Lily
Catalog Number: 37227
Launch Date: November 20, 2010
Launch site: Kodiak Launch Complex, Alaska, USA

Status: Operational

Uplink 1: 145.980 MHz 1k2 baud
Uplink 2: 145.825 MHz 1k2 baud
Downlink: 437.345 MHz 1k2 and 9k6 baud

Beacon: 437.435 MHz 1k2 AX.25

Callsign: Fast1

URL: http://fastrac.ae.utexas.edu/index.php

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=83

[07052011]
=====
FO-70 Fastrac-2 Emma
Catalog Number: 37380
Launch Date: November 20, 2010
Launch site: Kodiak Launch Complex, Alaska, USA

Status: Operational

Uplink 1: 435.025 MHz 1k2 baud
Uplink 2: 437.435 MHz 9k6 baud
Downlink: 145.825 MHz 1k2 and 9k6 baud

Beacon: 145.825 MHz 1k2 AX.25

Callsign: Fast2

URL: http://fastrac.ae.utexas.edu/index.php

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=84
[12162011]
=====
StudSat
Catalog Number: 36796
Launch Date: July 12, 2010 0352z
Launch site: Satish Dhawan Space Centre, India

Status: On Orbit

Uplink: 437.505MHz, 9600bps FSK
Downlink: 437.505MHz, 9600bps FSK
Beacon : 437.505MHz, 20bps ASK

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=164
[02092011]
=====
TIsat-1
Catalog Number: 36799
Launch Date: July 12, 2010 0352z
Launch site: Satish Dhawan Space Centre, India

Status: On orbit

Callsign: HB9DE

Uplink: 145.980MHz FM, AFSK
Downlink: 437.305MHz FM, AFSK
Beacon: 437.305MHz CW

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=118
[02092011]

=====
SwissCube
Catalog Number: 35932
Launch Date: September 23, 2009 0621z
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Callsign: HB9EG

Beacon(100mw): 437.5050MHz CW
Beacon(1w): 437.5050MHz FSK 1k2bps

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=109
[02092011]
=====
UWE-2
Catalog Number: 35934
Launch Date: September 23, 2009 0621z
Launch site: Satish Dhawan Space Centre, India

Status: In Orbit

Beacon(500mw): 437.3850 MHz AFSK 1k2bps
437.3850 MHz FSK 9k6bps

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=110
[02092011]
=====
ITUpsAT1
Catalog Number: 35935
Launch Date: September 23, 2009 0621z
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Beacon(100mw): 437.325MHz CW
Beacon(1w): 437.325MHz 19k2bps

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=113
[02092011]
=====
BEESAT
Catalog Number: 35933
Launch Date: September 23, 2009 0621z
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Callsign: DP0BEE

Beacon(100mw): 436.000MHz CW
Beacon(500mw): 436.000MHz GMSK 4k8bps
Beacon(500mw): 436.000MHz GMSK 9k6bp
[02092011]
=====
HAWKSAT 1
Catalog number: 35004
Launch Date: May 19, 2009 2355z
Launch site: Wallops Island, Virginia, USA

Status: operational

Downlink: 437.345 MHz ?

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=105
[07302012]
=====
ANUSAT
Catalog Number: 34808
Launch Date: April 20, 2009 0115z
Launch Site: Satish Dhawan Space Centre, India

Status: ?

Downlink: 435.000 MHz
Uplink: 145.800 MHz

Telemetry: 137.400 MHz
[02092011]
=====
SOHLA-1 (ASTRO TECH.)
Catalog Number: 33496
Launch Date: January 23, 2009 0354z
Launch site: Tanegashima Space Center, Japan

Status: Operational

Proposed Frequencies and Modes:
Downlink: 437.505 MHz AFSK/CW
Beacon: 437.505 MHz AFSK/CW

Callsign:

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=101
[02092011]
=====
KAGAYAKI (Solan Co.)
Catalog Number: 33495
Launch Date: January 23, 2009 0354z
Launch site: Tanegashima Space Center, Japan

Status: In Orbit

Downlink: 437.375 MHZ FSK9k6/CW
Beacon: 437.375 MHz FSK9k6/CW

IARU coordination status page:

AMSAT-NA webpage:

[02092011]
=====
STARS (Kagawa Univ.) (Twin Satellites)
Catalog Number: 33498
Launch Date: January 23, 2009 0354z
Launch site: Tanegashima Space Center, Japan

Status: Operational ?

Downlinks: 437.485 MHz FM/CW
437.465 MHz FM/CW
Beacons: 437.305 MHz FM/CW
437.275 MHz FM/CW

Callsigns: JR5YBN
JR5YBO

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=99

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=121&retURL
=/satellites/status.php
[02092011]
=====
KKS-1 (Tokyo MCIT)
Catalog Number: 33499
Launch Date: January 23, 2009 0354z
Launch site: Tanegashima Space Center, Japan

Status: Operational

Downlink: 437.455 MHz AFSK/CW
Beacon: 437.385 MHz AFSK/CW

Callsign: JQ1YYY

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=107

AMSAT-NA webapge:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=120&retURL
=/satellites/status.php
[20092011]
=====
PRISM (Tokyo Univ.)
Catalog Number: 33493
Launch Date: January 23, 2009 0354z

Launch site: Tanegashima Space Center, Japan

Status: Operational

Uplink: 145.xxx MHz AFSK 1k2
Downlink: 437.425 MHz AFSK 1k2
Beacon: 437.250 MHz CW

Callsign: JQ1YCX

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=97

Read terms and conditions of operations at the PRISM web page to find
out how
to properly operate on the satellite and to get the uplink frequency.
It
has
been asked that the uplink frequency not be given out untik you have
read and
understood the terms of usage.

URL:
http://www.space.t.u-tokyo.ac.jp/prism/en/HAMservice.html
[10282012]
=====
RS-30 Radio Sputnik 30 (Yubileiny)
Catalog Number: 32953
Launch Date: May 23, 2008 1520z
Launch site: Plesetsk Missile and Space Complex, Russia

Status: Operational

Curent Modes: Telemetry
Audio
Images

Downlinks: 435.315 MHz
435.215 MHz

AMSAT-NA website:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=115&ret
URL=/satellites/status.php

Official website:
http://www.npopm.com/?cid=leoca&caid=43
[02092011]
=====
CanX-2
Catalog number: 32790
Launch Date: April 28, 2008 0354z
Launch site: Satish Dhawan Space Centre, India

Status: Operational in range of ground station only

Downlink: 437.478 MHz GFSK

For the latest project status update please visit the Can X-2 web
page: http://www.utias-sfl.net/nanosatellites/CanX2/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=46
[02092011]
=====
AAUSAT-II
Catalog number: 32788
Launch Date: April 28, 2008 0354z
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Downlink: 437.425 MHz 1k2 baud packet

For the latest project status update please visit the AAUSAT-II web
page:
http://www.aausatii.aau.dk/homepage/index.php?language=en&page=home

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=60
[02092011]
=====
CO-65 CUTE-1.7+APD II
Catalog number: 32785
Launch Date: April 28, 2008 0354z
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Downlink: 437.475 MHz 9k6 Packet
Uplink: 1267.600 Mhz

Telemetry Beacon:
Downlink: 437.2750 MHz CW

For the latest project status update please visit the Cute-1.7+APD II
web page: http://lss.mes.titech.ac.jp/ssp/cute1.7/index_e.html

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=78

Command Station blog website:
http://lss.mes.titech.ac.jp/ssp/cute1.7/blog/

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=112&retURL
=/satellites/status.php
[03232012]
=====
Compass-1
Catalog number: 32787

Launch Date: April 28, 2008 0354z
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Current Mode: dependant on last received command

Uplink: 145.980 MHz FM
Downlink: 437.275 Mhz CW
437.405 MHz Packet

For the latest project status update please visit the Compass 1 web
page: http://www.raumfahrt.fh-aachen.de/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=52

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=114&retURL
=/satellites/status.php
[06162011]
=====
CO-66 Seeds II
Catalog number: 32791
Launch Date: April 28, 2008 0354z
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Downlink: 437.485 MHz

Callsign: JQ1YGU

For the latest project status update please visit the Seeds 2 web
page: http://cubesat.aero.cst.nihon-u.ac.jp/english/seeds_2_e.html

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=36

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=113&retURL
=/satellites/status.php
[073092011]
=====
CAPE-1
Catalog Number: 31130
Launch Date: April 17,2007 0702z
Launch site: Baikonur, Kazakhstan

Status: Intermittent

Current Mode: /u

TLM Downlink: 435.245 MHz 9600 bs FSK AX.25
CW Beacon: 435.245 MHz CW

Callsign: K5USL

TLM and CW interchange every 30 seconds.

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=94&retURL=
/satellites/status.php

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=72
[02092011]
=====
CP3
Catalog Number: 31129
Launch Date: April 17,2007 0702z
Launch site: Baikonur, Kazakhstan

Status: Operational

Current Mode: /u

Downlink: 436.845 MHz 1200 bps AFSK AX.25

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=74
[02092011]
=====
CO-58 CubeSat XI-V
Catalog number: 28895
Launch Date: October 27, 2005 0652z
Launch site: Plesetsk Missile and Space Complex, Russia

Status: Operational - CW Beacon only

Current Mode: /u

Telemetry Downlink: 437.4250 MHz AFSK 1200bps using AFK protocol
Beacon: 437.2750 MHz CW

Callsign: JQ1YGW

Official Webpage: http://www.space.t.u-tokyo.ac.jp/cubesat/mission/V/

Pictures received by Mineo Wakita - JE9PEL:
http://www.ne.jp/asahi/hamradio/je9pel/xivpicte.htm

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=37
[02092011]
=====
CO-57 CubeSat XI-IV
Catalog number: 27848
Launch date: June 30, 2003 1415z
Launch site: Plesetsk Missile and Space Complex, Russia

Status: ?????

Current Mode: /u

Beacon: 436.8475 MHz CW
Telemetry : 437.4900 MHz AFSK 1200 BPS

Callsign: JQ1YGW

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=96&retURL
=/satellites/status.php

Official Webpage: http://www.space.t.u-tokyo.ac.jp/cubesat/mission/V/
[02092011]
=====
QuakeSat
Catalog Number: 27845
Launch Date: June 30, 2003 1415z
Launch site: Plesetsk Missile and Space Complex, Russia

Status: Telemetry only

Current Mode: 9600 baud data packet

Mode U packet
Downlink: 436.675 MHz 9k6 BPS

Quakesat webpage:
http://www.quakefinder.com/services/quakesat-ssite/
[02252011]
=====
CO-55 Cute-1.7+APD II
Catalog Number: 27844
Launch date: June 30, 2003 1415z
Launch site: Plesetsk Missile and Space Complex, Russia

Status: Operational

Current Mode: CW downlink worldwide
AX25 Packet with uplink command over Japan only

Mode U Telemetry
Downlink: 437.4000 MHz AFSK 1200 BPS

Mode U TLM Beacon
Downlink: 436.8375 MHz CW

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=69&retURL
=/satellites/status.php

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=78
[02092011]
=====
NO-44 PCSAT
Catalog number: 26931

Launch Date: September 30, 2001 0240z
Launch site: Kodiak Launch Complex, Alaska, USA

Status: Operational

Current Mode: V/v

General Usage Uplink/Downlink: 145.827 MHz 1200 Baud
Special Usage Downlink: 144.390 Mhz 1200 Baud

PCSAT APRS page: http://pcsat.aprs.org

aprstlm Telemetry Decoder program:
http://www.xciv.org/~iain/aprstlm/v1.2/
[10292012]
=====
RS-22 RADIO SPORT 22 (MOZHAYETS 4)
Catalog number: 27939
Launch Date: September 27, 2003 0612z
Launch site: Plesetsk Missile and Space Complex, Russia

Status: Operational - 70cm cw only

Current Mode: /u

CW Beacon - 435.352 MHz
145.818 MHz

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=76&retURL
=/satellites/status.php
[02092011]
=====
LO-19 LUSAT
Catalog number: 20442
Launch date: January 22, 1990
Launch site: Kourou, French Guiana

Status: CW Beacon only

Uplinks: 145.840 MHz 1200-baud Manchester FSK
145.860 MHz 1200-baud Manchester FSK
145.880 MHz 1200-baud Manchester FSK
145.900 MHz 1200-baud Manchester FSK

CW downlink: 437.125 MHz

Digital downlink: 437.150 MHz SSB (RC-BPSK 1200-baud PSK)

Broadcast Callsign: LUSAT-11
BBS: LUSAT-12

General information and telemetry samples can be found at:
www.telecable.es/personales/ea1bcu
[02092011]

=====
UO-11 OSCAR-11
Catalog number: 14781
Launch Date: March 1, 1984
Launch site: Vandenburg AFB, California, USA

Status: Operational ?

Current Mode: /v

Telemetry Downlink: 145.825 MHz FM 1200 AFSK
UHFBeacon: 435.025 MHz
Mode-S Beacon: 2401.500 MHz

Mode and Antenna Polarization:
V: RHCP
S: LHCP

Webpage: http://www.users.zetnet.co.uk/clivew/
MPEG3 files: http://www.ne.jp/asahi/hamradio/je9pel/uo11tlme.htm
[07052011]
=====
INTERNATIONAL SPACE STATION (ISS) - ARISS
Catalog number: 25544
Launch date: November 20, 1998 0640z (ZARYA module)
Launch sites: Baikonur, Kazakhstan
Kourou, French Guiana
Uchinoura Space Center, Japan
Kennedy Space Center, Titusville, Florida, USA

Status: Operational

Current Active Modes: FM Repeater - OFF
Voice - V/v
BBS - V/v
2m APRS - V/v
2m Digi - V/v
70cm APRS - ?
70cm Digi - ?
SSTV - V/v

Expedition 34 Crew (November 2012 - March 2013):
Commander: Kevin Ford KF5GPP
Flight Engineer: Oleg Novitskiy
Flight Engineer: Evgeny Tarelkin
Flight Engineer: Roman Romanenko
Flight Engineer: Chris Hadfield KC5RNJ/VA3OOG
Flight Engineer: Tom Marshburn KE5HOC

Available Modes and Frequencies:
Digital/APRS:
Worldwide 2m packet uplink: 145.825 MHz FM 1k2
Worldwide 2m packet downlink: 145.825 Mhz FM 1k2

Worldwide 70cm packet uplink: 437.550 Mhz FM 1k2
Worldwide 70cm packet downlink: 437.550 Mhz FM 1k2

Voice:
Region 1 voice uplink: 145.200 MHz FM
Region 2/3 voice uplink: 144.490 MHz FM
Worldwide downlink: 145.800 MHz FM

Crossband Repeater:
Repeater Uplinks: 1269.650 MHz FM
437.800 MHz FM
145.990 MHz FM - 67.0 PL (Kenwood)
Repeater Downlink: 145.800 MHz FM
437.800 MHz FM (Kenwood)

SSTV Robot 36:
Downlink: 145.800 MHz FM

Mode and Antenna Polarization:
V: Linear
U: Linear

Callsigns:
Belgian: OR4ISS
German: DP0ISS
Russian: RS0ISS
RZ3DZR
United States: NA1SS
2m Packet Mailbox: RS0ISS-11
2m Digipeater alias: ARISS
70cm Packet Mailbox: RS0ISS-1
70cm Digipeater callsign: RS0ISS
70cm Digipeater alias: ARISS

Official ARISS Webpage: http://www.rac.ca/ariss
ISS Fan Club Webpage: http://www.issfanclub.com
APRS tracking page: http://www.ariss.net/

ISS Daily Crew Schedule: http://spaceflight.nasa.gov/station/timelines
Remember that the crew operates on UTC time. Also, all of the time
line is NOT translated from Russian and posted.
[12242012]
NNNN
/EX

SB SAT @ AMSAT W8ISS $WSR-028.S3
WSR 028 Part 3 01/21/2013

AMSAT NEWS SERVICE BULLETIN 028.S3
FROM AMSAT HQ SILVER SPRING, MD, January 21, 2013
TO ALL RADIO AMATEURS
BID: $WSR-028.S3

THE FOLLOWING ARE IN ORBIT BUT ARE NON-OPERATIONAL AT THIS TIME:

NANOSAIL-D
Catalog Number: 37361
Ejection Date: January 17, 2011

Status: Non - Operational

Downlink: 437.270 MHz AX.25

URL: http://nanosaild.engr.scu.edu/dashboard.htm

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=115
[07302012]
=====
HO-68 HOPE-1 (CAS-1) (XW-1)
Catalog Number: 36122
Launch Date: December 15, 2009 0231z
Launch site: Taiyuan Space Center, PRC

Status: Telemetry only

Callsign:
Broadcast: BJ1SA-11
BBS: BJ1SA-12

Uplinks: 145.8250 MHz FM, PL 67.0 Hz.
145.9250 - 145.9750 MHz SSB/CW
145.8250 MHz AFSK 1200 BPS
Downlinks: 435.6750 MHz FM
435.7650 - 435.7150 MHz SSB/CW
435.6750 MHz AFSK 1200 BPS

Beacon: 435.7900 MHz CW

Mode and Antenna Polarization:
V: LHCP 2.0dBi max
U: RHCP 3.0dBi max

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=108

For more information about XW-1 (CAS-1):
http://
[04302012]
=====
SO-67 SumbandilaSat
Catalog Number: 35870
Launch Date: September 17, 2009 1555z
Launch site: Baikonur, Kazakhstan

Status: Non - Operational

Callsign: ZS0SUM

Uplink: 145.875MHz FM tone 233.6 Hz
Downlink: 435.345MHz FM

Mode and Antenna Polarization:
V: Linear
U: Linear

For more information about SO-67:
http://www.amsatsa.org.za/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=88
[01272012]
=====
CP4
Catalog Number: 31132
Launch Date: April 17, 2007

Status: Non-Operational

Current Mode: /u

TLM Downlink: 437.325 MHz 1200 bps FSK AX.25
CW Beacon: 437.325 MHz CW

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=79
[09062010]
=====
LIBERTAD-1
Catalog Number: 31128
Launch Date: April 17, 2007

Status: Non-Operational

Current Mode: V/u APRS Packet ax25

Callsign: 5K3L

Uplink: 145.825 MHz 1200 AFSK ax25 APRS
Downlink: 437.399 MHz 1200 AFSK ax25 APRS

Telemetry Beacon: 437.4050 MHz 1200 AFSK ax25

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=76
[09062010]
=====
PO-63 PEHUENSAT-1
Catalog Number: 29712
Launch Date: January 10, 2007

Status: Non-Operational

Current Mode: V/v

Uplink/Downlink: 145.825 Mhz FM
Voice Recorder: 145.825 Mhz FM

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=51
[09062010]
=====
NCUBE-2
Catalog number: 28897
Launch Date: October 27, 2005

Status: Still attached to XO-53 (SSETI)?

Proposed Callsign: TBA
Proposed Transmit Frequency: 437.305
2407.250

Official Website: http://www.ncube.no

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=24
[09062010]
=====
XO-53 SSETI
Catalog number: 28894
Launch Date: October 27, 2005

Status: Non-operational

Voice Uplink: 437.250 MHz FM 67Hz CTCSS
Voice Downlink: 2401.835 MHz FM
Packet Up/Downlink: 437.250 MHz 9k6 packet
Packet Downlink 2401.835 MHz 38k4 packet

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=54
[09062010]
=====
UWE-1
Catalog Number: 28892
Launch Date: October 27, 2005

Status: Non-Operational

Mode U Telemetry
Downlink: 437.5050 MHz 9600 AFSK

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=53
[09062010]
=====
AO-51 ECHO
Catalog number: 28375
Launch date: June 29, 2004 0745z
Launch site: Baikonur, Kazakhstan

Status: Non - Operational

Current Mode(s):
Voice repeater: V/u
Uplink: 145.880 MHz FM
Downlink: 435.150 MHz FM

Telemetry: Recovery efforts
Downlink: 435.150MHz 9k6

Analog voice downlink: 435.300 MHz FM
435.150 MHz FM
2401.200 Mhz FM
Analog voice uplink: 145.860 MHZ FM
145.880 MHz USB
145.880 MHz FM
145.920 MHz FM
145.920 MHz FM - 67 Hz PL tone burst
1268.705 MHz FM
Digital Downlinks: 435.150 MHz FM 38k4 PBP, 1 watt output
435.150 MHz FM 9k6 Pacsat Broadcast
Protocol
2401.200 MHz FM 38k4 bps, AX.25
Digital Uplink: 145.860 MHz FM 9k6 Pacsat Broadcast
Protocol
1268.703 mhz FM 9k6 Pacsat Broadcast
Protocol
Beacon: 435.150 MHz

Mode and Antenna Polarization:
T: Linear
V: Linear
U: TX A (usually digital)LHCP
TX B (usually analog) RHCP
L: Linear
S: Linear

Broadcast: PECHO-11
BBS: PECHO-12

Official Webpage: http://www.amsat.org/amsat-new/echo/CTNews.php

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=19
[12062011]
=====
CANX-1
Catalog Number: 27847
Launch Date: June 30, 2003

Status: Non-Operational

Downlink: 437.8800 MHz AFSK 1k2bps
[06052009]

=====
DTUSAT
Catalog Number: 27842
Launch Date: June 30, 2003

Status: Non-Operational

Current Mode: 2k4 AFSK Packet last reported

Downlink: 437.475MHz

Officail webpage: http://dtusat1.dtusat.dtu.dk/

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=101&retURL
=satellites/all_oscars.php
[02212009]
=====
AO-49 AATiS OSCAR-49 (SAFIR-M)
Catalog number: 27605
Launch Date: December 20, 2002

Status: Non-operational.

Uplink: 435.275 MHz 1200-baud AFSK
Downlink: 145.825 MHz 9600-baud FSK
(optional voice message)

Broadcast callsign: DP0AIS

Official webpage: http://amend.gmxhome.de
[01222007]
=====
MO-46 TIUNGSAT-1
Catalog number: 26548
Launch date: September 26, 2000

Status: Telemetry only

Uplinks: 145.850 MHz
145.925 MHz 9600-baud FSK
Downlink: 437.325 MHz

Broadcast callsign: MYSAT3-11
BBS: MYSAT3-12

TiungSat-1 is Malaysia's first micro-satellite and in addition to
commercial land and weather imaging payloads offers FM and FSK
Amateur Radio communication.

TiungSat-1, named after the mynah bird of Malaysia, was developed as
a collaborative effort between the Malaysian government and Surrey
Satellite Technology Ltd.
[03302009]
=====

NO-45 SAPPHIRE
Catalog number: 26932
Launch Date: September 30, 2001

Status: Non-Operational

Downlink: 437.095 MHz 1200 baud AX-25 AFSK
Uplink: 145.945 MHz UI Digipeater
Digi Callsign: KE6QMD

Everyone is welcome to use the digipeating/APRS features of Sapphire,
as per the user service agreement located at the following URL:
http://web.usna.navy.mil/~bruninga/pcsat/contract.txt
[03132005]
=====
SO-42 SAUDISAT-1B
Catalog number: 26549
Launch date: September 26, 2000

Status: Non-Operational

Downlink: 437.075 MHz

Broadcast Callsign: SASAT2-11
BBS: SASAT2-12

Further information is available at:
http://www.amsat.org/amsat/sats/n7hpr/so42.html
[01222007]
=====
SO-41 SAUDISAT-1A
Catalog number: 26545
Launch Date: September 26, 2000

Status: Non-Operational

Uplink: 145.850 MHz
Downlink: 436.775 MHz

Broadcast Callsign: SASAT1-11
BBS: SASAT1-12

Further information is available at:
http://www.amsat.org/amsat/sats/n7hpr/so41.html
[01222007]
=====
AO-40 AMSAT OSCAR 40
Catalog number: 26609
Launch Date: November 16, 2000

Status: Non-Operational

Uplinks

V-band: 145.840 - 145.990 MHz CW/LSB
U-band: 435.550 - 435.800 MHz CW/LSB
L1-band: 1269.250 - 1269.500 MHz CW/LSB
L2-band: 1268.325 - 1268.575 MHz CW/LSB

Downlinks

S2-band: 2401.225 - 2401.475 MHz CW/USB
K-band: 24048.010 - 24048.060 MHz CW/USB
Beacon: 2401.323 MHz
24048.035 MHz

P3-D Telemetry Beacons (IHU)

BEACON General Beacon(GB) Middle Beacon(MB) Engineering Beacon(EB)
2 m none 145.898 MHz none
70cm 435.438 MHz 435.588 MHz 435.838 MHz
13cm(1) 2400.188 MHz 2400.338 MHz 2400.588 MHz
13cm(2) 2401.173 MHz 2401.323 MHz 2401.573 MHz
3cm 10450.975 MHz 10451.125 MHz 10451.375 MHz
1.5cm 24047.885 MHz 24048.035 MHz 24048.285 MHz
[07162007]
=====
OO-38 OPAL
Catalog Number: 26063
Launch Date: January 27, 2000

Status: Non-Operational

Mode U TLM Beacon
Downlink: 437.1000 MHz 9600 FSK
[08132007]
=====
UO-36 UoSAT-12
Catalog number: 25693
Launch date: April 21, 1999

Status: Unknown

Uplink: 145.960 MHz (9600-baud FSK)
Downlinks: 437.025 MHz
437.400 MHz

Broadcast Callsign: UO121-11
BBS: UO121-12

The VK5HI viewer shareware for UO-36 is available on the AMSAT-NA web
site at the following URL:
ftp://ftp.amsat.org/amsat/software/win32/display/ccddsp97-119.zip
[01222007]
=====
SO-35 SUNSAT
Catalog Number: 25636

Launch date:February 23, 1999

Status: Non-Operational

Downlink: Mode B Repeater: 436.291 MHz
Mode J Digipeater: 436.250 MHz

Uplinks: Mode B Repeater: 145.825 MHz
Mode J Digipeater: 145.825 MHz
145.900 MHz

For more information of SUNSAT vist the satellite web site:
http://esl.ee.sun.ac.za/projects/sunsat/
[01222007]
=====
PO-34 PANSAT
Catalog number: 25520
Launch date: October 30, 1998

Status: Telemetry downloads only

Uplink/downlink: 436.500 MHz

Official Webpage: http://www.sp.nps.navy.mil/pansat/
[05092004]
=====
SO-33 SEDSAT-1
Catalog number: 25509
Launch date: October 24, 1998

Status: Semi-operational

Downlink: 437.910 MHz FM (9600-baud FSK)

The satellite is not currently available for uplink transmissions and
the image and transponder recovery efforts have been unsuccessful.

For more information on SedSat-1 visit the satellite web site:
http://seds.uah.edu/projects/sedsat/sedsat.htm
[09042006]
=====
GO-32 Gurwin TechSat-1B
Catalog number: 25397
Launch Date: July 10, 1998

Status: Non-Operational

Current Modes:
Telemetry : /u

Downlink: 435.225 MHz FM (9600-baud FSK)
435.325 Mhz - Not Available - temperature problems
Uplinks: 145.850 FM
145.890 FM
145.930 FM

1269.700 FM
1269.800 FM
1269.900 FM

Broadcast Callsign: 4XTECH-11
BBS Callsign: 4XTECH-12

More information of GO-32 can be found at:
http://asri.technion.ac.il/techsat/

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=14&retURL
=/satellites/status.php
[07172010]
=====
TO-31 TMSAT-1
Catalog number: 25396
Launch Date: July 10, 1998

Status: Non-operational

Uplink: 145.925 MHz 9600 baud FSK
Downlink: 436.925 MHz 9600 baud FSK

Broadcast callsign: TMSAT1-11
BBS: TMSAT1-12
[05012006]
=====
MO-30 UNAMSAT-2
Catalog Number: 24305
Launch Date: September 5, 1996

Status: Non-operational

Downlink: 435.1380 MHz AFSK 1200 BPS
Downlink: 435.2060 MHz AFSK 1200 BPS
Uplink: 145.8150 MHz AFSK 1200 BPS
Uplink: 145.8350 MHz AFSK 1200 BPS
Uplink: 145.8550 MHz AFSK 1200 BPS
Uplink: 145.8750 MHz AFSK 1200 BPS
[06042009]
=====
PO-28 POSAT-1
Catalog number: 22829
Launch Date: September 25, 1993

Status: Non-operational

Downlink: 429.950
Uplink: Not until handover back to Amatuer usage

Broadcast callsign: POSAT1-11
BBS callsign: POSAT1-12

AMSAT Webpage: http://www.amsat.org/amsat/sats/n7hpr/po28.html
POSAT-1 webpage:
http://www.ee.surrey.ac.uk/SSC/CSER/UOSAT/missions/posat1.html
[01012009]
=====
AO-27 AMRAD
Catalog number: 22825
Launch Date: September 26, 1993 0140z
Launch site: Kourou, French Guiana

Status: Recovery efforts in progress

Current Mode: V/u

Uplink: 145.850 MHz FM
Downlink: 436.797 MHz FM

Mode and Antenna Polarization:
V: Linear
U: Linear

Official Webpage: http://www.ao27.org
[12032012]
=====
IO-26 ITAMSAT
Catalog number: 22826
Launch Date: September 26, 1993 0140z

Status: PSK carrier only

Current Mode:

Uplinks: 145.875 MHz FM 1200-baud
145.900 MHz FM 1200-baud
145.925 MHz FM 1200-baud
145.950 MHz FM 1200-baud

Downlink: 435.808 MHz PSK

Broadcast Callsign: ITMSAT-11
BBS: ITMSAT-12

Official webpage: http://www.itamsat.org
AMSAT Webpage: http://www.amsat.org/amsat/sats/n7hpr/io26.html
[01212007]
=====
KO-25 KITSAT
Catalog number: 22828
Launch date: September 26, 1993

Status: Non-operational

Uplink: 145.980 MHz FM 9600-baud FSK
Downlink: 436.500 MHz FM

Broadcast Callsign: HL02-11
BBS: HL02-12
[05092004]
=====
AO-24 ARSENE
Catalog Number: 22654
Launch Date: May 13, 1993

Status: Non-operational

Uplink: 435.0625 MHz FM 1k2bps AFSK
435.1125 MHz FM 1k2bps AFSK
435.1375 MHz FM 1k2bps AFSK
Downlink: 145.9750 MHz FM 1k2bps AFSK
2446.5025 MHz FM 1k2bps AFSK

Beacon: 2446.4700 MHz CW

Broadcast callsign:
BBS:
[12162009]
=====
KO-23 KITSAT
Catalog number: 22077
Launch date: August 10, 1992

Status: Non-operational

Uplink: 145.900 MHz FM (9600-baud FSK)
Downlink: 435.170 MHz FM

Broadcast Callsign: HLO1-11
BBS: HLO1-12
[01222007]
=====
UO-22 UOSAT
Catalog number: 21575
Launch date: July 17, 1991

Status: Non-Operational

Uplink: 145.900 FM 9600-baud FSK
Downlink: 435.120 MHz FM

Broadcast Callsign: UOSAT5-11
BBS: UOSAT5-12
[01222007]
=====
AO-21 AMSAT-OSCAR 21
Catalog Number: 21087
Launch Date: January 29, 1991

Status: Non-Operational

Uplink: 435.041 MHz FM DSP
Downlink: 145.983 MHz FM DSP
[01222007]
=====
FO-20 JAS-1b
Catalog number: 20480
Launch Date: February 07, 1990

Status: Non-Operational

Beacons: 435.795 MHz CW
435.910 MHz AX25

Voice Transponder:
Uplink: 145.900 to 146.000 MHz CW/LSB
Downlink: 435.800 to 435.900 MHz CW/USB

Digital Transponder:
Uplinks: 145.850 MHz
145.870 MHz
145.890 MHz
145.910 MHz
Downlink: 435.910 MHz

More FO-20 info can be found at:
http://www.amsat.org/amsat/sats/n7hpr/fo20.html
[01152007]
=====
WO-18 WEBERSAT
Catalog Number: 20441
Launch Date: January 22, 1990

Status: Non-Operational

Downlink: 437.104 MHz SSB 1200 Baud PSK AX.25
[05012006]
=====
DO-17 Dove
Catalog Number: 20440
Launch Date: January 22, 1990

Status: Non-operational.

Downlink: 145.825 MHz FM 1200 Baud AFSK
Beacon: 2401.220 MHz
[05012006]
=====
AO-16 PACSAT
Catalog number: 20439
Launch Date: January 22, 1990

Status: non-operational

Current Mode: V/u

Uplink: 145.900 MHz FM 1200-baud Manchester FSK (reserved)
145.920 MHz FM VOICE
145.940 MHz FM 1200-baud Manchester FSK (reserved)
145.960 MHz FM 1200-baud Manchester FSK (reserved)

Downlink: 437.026 MHz USB VOICE
(1200-baud PSK - MBL Telemetry Only)

Mode-S Beacon: 2401.1428 MHz [NO FUTURE OPERATIONS PLANNED]

Mode and Antenna Polarization:
U: RC 437.050 MHz RHCP
PSK 437.026 MHz LHCP
V: Linear

Broadcast Callsign: PACSAT-11
BBS: PACSAT-12

AO-16 AMSAT Webpage: http://www.amsat.org/amsat/sats/n7hpr/ao16.html
[07242009]
=====
UO-15 UoSAT-4
Catalog Number: 20438
Launch Date: January 22, 1990

Status: Non-operational

Uplink: ?
Downlink: 435.1250MHz (?)
435.1200MHz (?)
[06042009]
=====
UO-14 UoSAT-3
Catalog number: 20437
Launch date: January 22, 1990

Status: Non-operational

Uplink: 145.975 MHz FM
Downlink: 435.070 MHz FM
[05092004]
=====
FO-12 Fuji-OSCAR 12
Catalog Number: 16909
Launch Date: August 12, 1986

Status: Non-Operational

Mode V/U (J) Linear Transponder (Inverting):
Uplink: 145.9000 - 146.0000 MHz SSB/CW
Downlink 435.8000 - 435.9000 MHz SSB/CW

Mode V/U (J) Packet:
Uplink: 145.8500 MHz MFSK 1200 BPS
Uplink: 145.8700 MHz MFSK 1200 BPS

Uplink: 145.8900 MHz MFSK 1200 BPS
Uplink: 145.9100 MHz MFSK 1200 BPS

Downlink 435.9100 MHz PSK 1200 BPS

Telemetry Beacon: 435.7950 MHz SSB/CW
[01152007]
=====
AO-10 OSCAR 10
Catalog number: 14129
Launch Date: June 16, 1983

Status: Non-operational

Uplink: 435.030 to 435.180 MHz CW/LSB
Downlink: 145.975 to 145.825 MHz CW/USB

Beacon: 145.810 MHz (unmodulated carrier)

W4SM has more information about the satellite at the following URL:
http://www.cstone.net/~w4sm/AO-10.html
[05092004]
=====
AO-8 AMSAT-OSCAR 8
Catalog Number: 10703
Launch Date: March 3, 1978

Status: Non-Operational

Mode V/U (J) Linear Transponder (Non-Inverting): Non-Operational
Uplink: 145.9000 - 146.0000 MHz SSB/CW
Downlink 435.1990 - 435.2000 MHz SSB/CW

Mode V/U (J) TLM Beacon: Non-Operational
Downlink 435.0950 MHz CW

Mode V/A (A) Linear Transponder (Non-Inverting): Non-Operational
Uplink: 145.8500 - 145.9000 MHz SSB/CW
Downlink 29.4000 - 29.5000 MHz SSB/CW

Mode V/A (A) TLM Beacon: Non-Operational
Downlink 29.4020 MHz CW
[01152007]
=====
AO-6 AMSAT-OSCAR 6
Catalog Number: 06236
Launch Date: October 15, 1972

Status: Non-Operational

Uplink: 145.9000 - 146.0000 MHz SSB/CW
Downlink: 29.4500 - 29.5500 MHz SSB/CW
Beacons: 29.450 MHz
435.100 MHz

[01312008]
=====
AO-5 Australis-OSCAR 5
Catalog Number: 04321
Launch Date: January 23, 1970

Status: Non-Operational

Telemetry Beacons: 144.0500 MHz CW
29.4500 MHz CW
[01152007]
=====
OSCAR III
Catalog Number: 01293
Launch Date: March 09, 1965

Status: Non-Operational

Uplink: 145.9750 - 146.0250 MHz SSB/CW
Downlink: 144.3250 - 144.3750 MHz SSB/CW
[01012007]
=====
RS-15 RADIO SPORT RS-15
Catalog number: 23439
Launch Date: December 26, 1994

Status: Non-operational

Uplink: 145.858 to 145.898 MHz CW/USB
Downlink: 29.354 to 29.394 MHz CW/USB

Beacon 1: 29.352 MHz (intermittent)
Beacon 2: 29.398 MHz

SSB meeting frequency: 29.380 MHz (unofficial)
[06202004]
=====
RS-13 RADIO SPORT RS-13
Catalog number: 21089
Launch date: February 5, 1991

Status: Non-operational

Uplink: 21.260 to 21.300 MHz CW/USB
Downlink: 145.860 to 145.900 MHz CW/USB

Beacon: 145.860 MHz

Robot: 145.908 MHz
[05232004]
=====
RS-12 RADIO SPORT RS-12
Catalog number: 21089
Launch date: February 5, 1991

Status: Non-operational

Uplink: 21.210 to 21.250 MHz CW/USB
Downlink: 29.410 to 29.450 MHz CW/USB

Beacon: 29.408 MHz

Robot: 29.454 MHz
[05232004]
NNNN
/EX

SB SAT @ AMSAT W8ISS $WSR-028.S4
WSR 028 Part 4 01/07/2013

AMSAT NEWS SERVICE BULLETIN 028.S4
FROM AMSAT HQ SILVER SPRING, MD, January 07, 2013
TO ALL RADIO AMATEURS
BID: $WSR-028.S4

THE FOLLOWING SATELLITES HAVE RE-ENTERED OR HAVE BEEN RETURNED SAFELY:

ARISSat-1
Catalog number: 37772
Launch date: August 03, 2011 1843z
Launch site: International Space Station

Status: Re-entered January 05, 2012

Callsign: RS01S

Current Mode(s):
Linear Transponder: U/v
Uplink: 435.758 to 435.742 MHz CW/LSB
Downlink: 145.922 to 145.938 MHz CW/USB

FM Telemetry/SSTV/Messages/ID:
Downlink: 145.950 MHz FM

Telemetry/Beacon:
Downlink: 145.939 MHz CW1
145.919 MHz CW2
145.920 MHz 1k BPSK USB
145.920 MHz 400b BPSK USB

Official Webpage:http://www.amsat.org/amsat-new/ARISSat/ARISSat.php

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/informal_detail.php?serialnum=89
[01052012]
=====
CP-6
Catalog Number: 35003
Launch Date: May 19, 2009 2355z
Launch site: Wallops Island, Virginia, USA

Status: Re-enetered October 06, 2011

Downlink: 437.365 MHz 1k2 AFSK

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=121
[01282013]
=====
Pharmasat
Catalog Number: 35002
Launch Date: May 19, 2009 2355z
Launch site: Wallops Island, Virginia, USA

Status: Re-entered August 14, 2012

Downlink: 437.465 MHz 1k2 AFSK

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=94
[01282013]
=====
CAERUS (Mayflower)
Catalog Number: 37252
Launch Date: December 08, 2010 15:43:00 UTC
Launch site: Kennedy Space Center, Titusville, Florida, USA

Status: Re-entered December 22, 2010

Uplink:
Downlink: 437.600 MHz 1k2 AX.25

Beacon: 437.600 MHz CW

Callsign: KJ6FIX

URL:
http://www2.isi.edu/research/prj-serc/prj-serc_projects/prj-serc_proje
cts-8.htm

IARU coordination status page:

[01282013]
=====
CO-56 CUTE-1.7 + APD
Catalog number: 28941
Launch date: February 21, 2006

Status: Re-entered
Re-entered: October 25, 2009

Uplink: 1268.5000 MHz GMSK 9600 BPS
Downlink: 437.4700 MHz 1200 FM ax25 or SRLL (ACTIVE only near Japan?)

Telemetry Beacon: 437.3850 CW
Callsign: JQ1YPC

Information webpage:
http://lss.mes.titech.ac.jp/ssp/spacerium/cute1blog/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=56
[09062010]
=====
BEVO-1 (DRAGONSAT-1)
Catalog Number: 35690
Launch Date: May 19, 2009

Status: Re-entered
Re-entered:

Downlink: 437.325 MHz 9k6 GMSK
437.325 MHz CW 20wpm

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=117
[07312009]
=====
AggieSat2 (DRAGONSAT-2)
Catalog Number: 35690
Launch Date: May 19, 2009

Status: Re-entered
Re-entered:

Downlink: 436.250 MHz 9k6 FHSS
[11112009]
=====
Pollux
Catalog Number: 35693
Launch Date: July 31, 2009

Status: Re-entered
Re-entered:

Callsign: POLLUX-1

Downlink: 145.825MHz 1k2 AX.25

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=139
[09062010]
=====
Castor (ANDE-2)
Catalog Number: 35694
Launch Date: July 31, 2009

Status: Re-entered
Re-entered:

Callsign: KD4HBO-1

Downlink: 145.825 MHz 1k2 AX.25

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=144
[09062010]
=====
NO-62 FCAL
Catalog Number: 29667
Launch Date: December 21, 2006

Status: Re-Entered
Re-entered: July 28, 2008

Downlink: 437.385 Mhz APRS AX25

Downlink ID: KD4HBO

Website: http://eng.usna.navy.mil/~bruninga/fcal.html

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=59
[01012009]
=====
NO-61 ANDE
Catalog Number: 29664
Launch Date: December 21, 2006

Status: Re-Entered
Re-entered: December 25, 2007

Uplink/Downlink: 145.825 Mhz FM APRS AX25
[01032008]
=====
NO-60 RAFT-1
Catalog Number: 29661
Launch Date: December 21, 2006

Status: Re-Entered
Re-entered: May 30, 2007

Main Downlink: 145.825 Mhz FM APRS AX25
APRS Uplink: 145.825 MHz FM APRS AX25
Voice/PSK31 Uplink: 28.120 MHz

Packet to Voice ID: RAFT
[06112007]
=====
GENESAT-1
Catalog Number: 29655
Launch Date: December 16, 2006

Status: Re-Entered
Re-entered date: August 8, 2010

Current Mode: /u

Callsign: KE7EGC

Telemetry Beacon Downlink: 437.0695 MHz AFSK 1200 BPS

Official webpage: http://www.crestnrp.org/genesat1/ahc.html
[08082010]
=====
HO-59 HITSat
Catalog number: 29484
Launch date: September 22, 2006

Status: Re-Entered
Re-entered: June 18, 2008

Telemetry Downlink: 437.4250 MHz AFSK 1200 BPS
Beacon: 437.2750 MHz CW

Callsign: JR8YJT
[01012009]
=====
SO-43 Starshine 3
Catalog Number: 26929
Launch Date: September 30, 2001

Status: Re-Entered
Re-entered: January 21, 2003

Beacon: 145.825Mhz
[02212009]
NNNN
/EX

ANS is released worldwide via the AMSAT ANS e-mail reflector and a
live
radiocast on the AMSAT-NA 20-meter net held each Sunday on 14.282 MHz.
Pre-net operations start at 18:00 UTC, with current ANS bulletins
trans-
mitted to the eastern U.S. at 19:00 UTC and to the western U.S. at
19:30
UTC.

Information on AMSAT-NA is available at the following URL:
http://www.amsat.org

Mailing address:
AMSAT-NA
850 Sligo Avenue, Suite 600
Silver Spring, Maryland 20910-4703

Voice: 301-589-6062
888-322-6728
FAX: 301-608-3410

Currently, AMSAT-NA supports the following (free) mailing lists:

* AMSAT News Service (ANS)
* General satellite discussion (AMSAT-BB)
* Orbit data (KEPS)
* Manned space missions (SAREX)
* District of Columbia area (AMSAT-DC)
* New England area (AMSAT-NE)
* AMSAT Educational Liaison mailing list (AMSAT-EDU)
* AMSAT K-12 Educational Liaison mailing list (AMSAT-K12)

A daily digest version is available for each list.

To subscribe, or for more list information, visit the following URL:
http://www.amsat.org/mailman/listinfo/ans

In addition to regular membership, AMSAT-NA offers membership in the President's Club. Members of the President's Club, as sustaining donors to AMSAT Project Funds, will be eligible to receive additional benefits. Application forms are available from the AMSAT-NA Office.

This week's Weekly Satellite Report Editor is James French, W8ISS.

ANS is always dedicated to past ANS editor 'BJ' Arts, WT0N, and to the memory of longtime AMSAT supporters Werner Haas, DJ5KQ, Dennis Kitchen, G0FCL and John Branegan GM4IHJ.

Please send any amateur satellite news or reports to: ans-editor{at}
amsat.org
NNNN
/EX

16. Weekly Highlights of Solar and Geomagnetic Activity, 21 - 27 January 2013

Newsgroup: rec.radio.amateur.space
Date: 2013-01-28 16:30:11 UTC
From: SWPC.Webmaster@noaa.gov
Message-ID: <20130128163001.D82A133C53@panix2.panix.com>
Source record: 93
Cross-posted to: rec.radio.amateur.misc,rec.radio.amateur.dx,rec.radio.amateur.space,rec.radio.shortwave,rec.radio.info

```
:Product: Weekly Highlights and Forecasts
:Issued: 2013 Jan 28 0352 UTC
# Prepared by the US Dept. of Commerce, NOAA, Space Weather Prediction Center
# Product description and SWPC contact on the Web
# http://www.swpc.noaa.gov/weekly.html
#
# Weekly Highlights and Forecasts
#
Highlights of Solar and Geomagnetic Activity
21 - 27 January 2013

Solar activity has been at very low levels for the past week. At the
beginning of the summary period, Region 1654 (N08, L=151 Class/Area
Fki/1100 on 11 Jan) rotated off the west limb without producing any
major activity. Region 1660 (N13, L=065 Class/area Dao/220 on 25
Jan) was the only other region of magnetic complexity on the visible
disk. However, very little activity was attributed to Region 1660.
The remaining regions on the disk remained stable and quiet. A
couple of non-Earth directed CMEs were observed during the period.
On 23 January, a large filament eruption was observed off the
northeast quadrant of the visible disk. LASCO C2/C3 and STEREO A/B
COR2 imagery supported an associated CME with this event. SWPC
forecaster analysis and WSA-Enlil models runs indicated this event
was Earth directed, however very little affects would be observed
upon arrival.

No proton events were observed at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit was
normal to moderate levels during the summary period.

Geomagnetic field activity was at mostly quiet levels from 21 -25
January. On 26 January, solar wind measurements from the ACE
spacecraft indicated the arrival of a coronal hole high speed stream
(CH HSS), preceded by a co-rotating interaction region (CIR). The
ACE measurements showed and small increase in solar wind density,
followed by an increase in solar wind speed, accompanied by an
enhancement in the total interplanetary magnetic field. In response
to these changes, quiet to active levels were observed. As effects
from the CH HSS waned, a return to quiet levels was observed on 27
January. An instrument on the ACE spacecraft called the EPAM, used
to monitor energetic protons and electrons in the solar wind,
indicated the possible arrival of the 23 January CME late on 26
January. Due to the arrival of the CH HSS, it was hard to discern
```

which effects can be attributed to the CH HSS and which can be attributed to the CME.

Forecast of Solar and Geomagnetic Activity
28 January - 23 February 2013

Solar activity is expected to be very low levels with the possibility of C-class events for the entire forecast period. Even though several of the returning regions show magnetic complexity, very little data has indicated increases in activity while these regions rotate around the far side of the disk.

No proton events are expected at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit is expected to be normal to high levels on 28-30 January and 11-12 February in response to CH HSS effects. Normal to moderate levels are expected for the remainder of the period.

Geomagnetic field activity is expected to be at mostly quiet levels for the entire forecast period, except for 09-10 February and 22-23 February. Quiet to active levels are expected on these days in response to CH HSS effects.

17. cation

Newsgroup: rec.radio.amateur.space
Date: 2013-01-31 09:32:16 UTC
From: Anthasue <anthasue@yahoo.fr>
Message-ID: <23442442@news.orange.fr>
Source record: 94

Hiya

When studying the electron, it should be interesting to detail the double
bond of the material in an efficient way;
As a consequence, it should be interesting to detail the condensation of the material with collaborative contributions when evaluating the electron and the particular
case of the material biomolecules;
But After analyzing the electron and the particular case of the material chemical
structure, I guess that we may describe the molecular structure of the
material with collaborative contributions
:-)

18. Crossposting Permitted to rec.radio.amateur.moderated

Newsgroup: rec.radio.amateur.space
Date: 2013-02-01 07:00:02 UTC
From: rram@panix.com
Message-ID: <radio/ham-radio/moderated/crossposting-1-1359702000@panix.com>
Source record: 95
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.amateur.space,rec.radio.info

```
Posted-By: auto-faq 3.3.2 beta (PGPMoose V2.0, Perl 5.005)
Archive-name: radio/ham-radio/moderated/crossposting
Revision: 1.2 2011/11/02 04:08:53
Posting-Frequency: posted twice monthly
URL: http://www.panix.com/~rram/usenet/rram/index.html

Changes followed by "|".

After a 30-day public discussion and feedback period to gauge reader
opinions in March of 2009:

http://groups.google.com/group/rec.radio.amateur.moderated/browse_thread/thread/d7d337db35
f23326

the rec.radio.amateur.moderated Moderation Team had decided to consider |
amending its charter, and permit limited simultaneous crossposting to
rec.radio.amateur.moderated and one other unmoderated
amateur-radio-related discussion newsgroup. After a successful trial |
period (90 days, through early July 2009), we decided to adopt this |
change permanently. |

Approved rec.radio.amateur.* newsgroups are those that are currently
listed in the latest version of the "List of Big Eight Newsgroups" which
is crossposted monthly to news.announce.newgroups, news.groups, and
news.lists.misc.

Approved alt.radio.amateur.* and alt.ham-radio.* newsgroups are those
that have been created consistent with the suggestions in "So You Want
to Create an Alt Newsgroup" at:

http://www.faqs.org/faqs/alt-creation-guide/

Approved regional hierarchy newsgroups are those that contain either
"radio.amateur" or "ham-radio" in their names, including
uk.radio.amateur and aus.radio.amateur.misc.

We will make every reasonable effort to keep our list of approved
newsgroups up-to-date. In case we have overlooked any, and a submission
is rejected in error as a result, the rejected submitter can E-mail us
at our administrative contact address (in the signature at the bottom of
this article, and the default Reply-To for the rejection message)
requesting that it be added, and that the article be approved. We may
still choose to reject articles crossposted to any alt.* newsgroup with
an inappropriate name, including obscene language, embedded
name-calling, or encouragement of unlawful conduct.
```

Please direct any comments, questions, or criticisms to
rec-radio-amateur-moderated-request@panix.com.

19. WSR-035 AMSAT Weekly Satellite Report

Newsgroup: rec.radio.amateur.space
Date: 2013-02-02 19:27:29 UTC
From: JoAnne Maenpaa <k9jkm@comcast.net>
Message-ID: <002b01ce017b$05ce3b90$116ab2b0$@net>
Source record: 96
Cross-posted to: rec.radio.amateur.space,rec.radio.info

```
This report is organized into three (3) parts.
Part 1 (S1) - operational analog amateur satellites
Part 2 (S2) - operational digital amateur satellites
Part 3 (S3) - non - operational satellites

SB SAT @ AMSAT W8ISS $WSR-035.S1
WSR 035 Part 1 02/04/2013

AMSAT NEWS SERVICE BULLETIN 035.S1
FROM AMSAT HQ SILVER SPRING, MD, February 04, 2013
TO ALL RADIO AMATEURS
BID: $WSR-035.S1

PW-Sat
Catalog Number: 38083
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: On Orbit

Uplink: 435.020 MHz FM
Downlink: 145.900 MHz DSB

Beacon:

Callsign:

URL:

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=132
[01282013]
=====
DO-64 Delfi-C3
Catalog number: 32789
Launch Date: April 28, 2008 0354z
Launch site: Satish Dhawan Space Centre, India

Status: Operational
Current Mode: Science Mode - Beacon ONLY

Telemetry: 145.870 MHz

Downlink: 145.880 to 145.920 MHz
Uplink: 435.530 to 435.570 MHz

Delfi-C3 web page: http://www.delfic3.nl/
```

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=68
[01282013]
=====
VO-52 HAMSAT
Catalog number: 28650
Launch Date: May 05, 2005 0444z
Launch site: Satish Dhawan Space Centre, India

Status: Operational
Current Mode: U/v - Dutch Transponder

Frequencies:
Indian Transponder:
Uplink: 435.220 to 435.280 MHz LSB/CW
Downlink: 145.930 to 145.870 MHz USB/CW

Dutch Transponder:
Uplink: 435.225 to 435.275 MHz LSB/CW
Downlink: 145.925 to 145.875 MHz USB/CW

Indian Beacon: 145.9360 MHZ CW
Dutch Beacon: 145.860 MHz 12WPM with CW message

Mode and Antenna Polarization:
V: LHCP
U: RHCP

Official Webpage: http://www.amsatindia.org/hamsat.htm

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=30

To know what transponder is switched on please listen for the beacon
that is active. Each transponder has a different beacon.
[01282013]
=====
SO-50 SAUDISAT-1C
Catalog number: 27607
Launch date: December 20, 2002 1700z
Launch site: Baikonur, Kazakhstan

Status: Operational

Current Mode: V/u

Uplink: 145.850 MHz FM - 67.0 Hz PL tone
Downlink: 436.795 MHz

Mode and Antenna Polarization:
V: Linear
U: Linear

Official Webpage: http://saudisat.kacst.edu.sa/index.shtml
(not up and running currently)

To switch the transmitter on, you need to send a CTCSS tone of 74.4
Hz. The order of operation is thus: (allow for Doppler as necessary):
1) Transmit on 145.850 MHz with a tone of 74.4 Hz to arm the 10 minute
timer on board the spacecraft.
2) Now transmit on 145.850 MHz (FM Voice) using 67.0 Hz to PT the re-
peater on and off within the 10 Minute window.
3) Sending the 74.4 tone again within the 10 minute window will reset
the 10 minute timer.
[01282013]
=====
FO-29 JAS-2
Catalog number: 24278
Launch Date: August 17, 1996

Status: Operational
Current Mode: V/u (Mode JA)

Voice/CW (Mode JA)
Uplink: 145.90 to 146.00 MHz CW/LSB
Downlink: 435.80 to 435.90 MHz CW/USB
Beacon: 435.795 MHz

Digital Mode JD
Uplinks: 145.850 MHz FM
145.870 MHz FM
145.910 MHz FM
Downlink: 435.910 MHz 1200-baud BPSK or 9600-baud FSK
Callsign: 8J1JCS
Digitalker: 435.910 MHz

Mode and Antenna Polarization:
V: RHCP
U: RHCP

For current operational schedule for FO-29:
http://www.ne.jp/asahi/m-arai/gkz/satinfo/fo29e.htm

JARL English webpage:
http://www.jarl.or.jp/English/5_Fuji/ejasmenu.htm

AMSAT-NA Webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID
=5&retURL=/satellites/status.php

Mineo Wakita, JE9PEL, has created a simple decoder program for FO29's
CW telemetry downlink: http://www.ne.jp/asahi/hamradio/je9pel/
fo29cwts.htm
[01282013]
=====
AO-7 AMSAT OSCAR 7
Catalog number: 07530
Launch Date: November 15, 1974
Launch site: Vandenberg AFB, California, USA

Status: Operational

Current Mode: Alternating between Mode A and B every 24 hours

Uplink: 145.850 to 145.950 MHz CW/USB Mode A
432.125 to 432.175 MHz CW/LSB Mode B
Downlink: 29.400 to 29.500 MHz CW/USB Mode A (1W PEP)
145.975 to 145.925 MHz CW/USB Mode B (8W PEP)
145.975 to 145.925 MHz CW/USB Mode C (2W PEP)
Beacons: 29.502 MHz CW
145.972 MHz CW
435.100 MHz CW
2304.100 MHz CW

Official Webpage:
http://www.amsat.org/amsat-new/satellites/sat_summary/ao7.php
[01282013]
=====
INTERNATIONAL SPACE STATION (ISS) - ARISS
Catalog number: 25544
Launch date: November 20, 1998 0640z (ZARYA module)
Launch sites: Baikonur, Kazakhstan
Kourou, French Guiana
Uchinoura Space Center, Japan
Kennedy Space Center, Titusville, Florida, USA

Status: Operational

Current Active Modes: FM Repeater - OFF
Voice - V/v
BBS - V/v
2m APRS - V/v
2m Digi - V/v
70cm APRS - ?
70cm Digi - ?
SSTV - V/v

Expedition 34 Crew (November 2012 - March 2013):
Commander: Kevin Ford KF5GPP
Flight Engineer: Oleg Novitskiy
Flight Engineer: Evgeny Tarelkin
Flight Engineer: Roman Romanenko
Flight Engineer: Chris Hadfield KC5RNJ/VA3OOG
Flight Engineer: Tom Marshburn KE5HOC

Available Modes and Frequencies:
Digital/APRS:
Worldwide 2m packet uplink: 145.825 MHz FM 1k2
Worldwide 2m packet downlink: 145.825 Mhz FM 1k2
Worldwide 70cm packet uplink: 437.550 Mhz FM 1k2
Worldwide 70cm packet downlink: 437.550 Mhz FM 1k2

Voice:
Region 1 voice uplink: 145.200 MHz FM

Region 2/3 voice uplink: 144.490 MHz FM
Worldwide downlink: 145.800 MHz FM

Crossband Repeater:
Repeater Uplinks: 1269.650 MHz FM
437.800 MHz FM
145.990 MHz FM - 67.0 PL (Kenwood)
Repeater Downlink: 145.800 MHz FM
437.800 MHz FM (Kenwood)

SSTV Robot 36:
Downlink: 145.800 MHz FM

Mode and Antenna Polarization:
V: Linear
U: Linear

Callsigns:
Belgian: OR4ISS
German: DP0ISS
Russian: RS0ISS
RZ3DZR
United States: NA1SS
2m Packet Mailbox: RS0ISS-11
2m Digipeater alias: ARISS
70cm Packet Mailbox: RS0ISS-1
70cm Digipeater callsign: RS0ISS
70cm Digipeater alias: ARISS

Official ARISS Webpage: http://www.rac.ca/ariss
ISS Fan Club Webpage: http://www.issfanclub.com
APRS tracking page: http://www.ariss.net/

ISS Daily Crew Schedule: http://spaceflight.nasa.gov/station/timelines
Remember that the crew operates on UTC time. Also, all of the time
line is NOT translated from Russian and posted.
[01282013]
NNNN
/EX

SB SAT @ AMSAT W8ISS $WSR-035.S2
WSR 035 Part 2 02/04/2013

AMSAT NEWS SERVICE BULLETIN 035.S2
FROM AMSAT HQ SILVER SPRING, MD, February 04, 2013
TO ALL RADIO AMATEURS
BID: $WSR-035.S2

Fitsat-1
Catalog number: 38853
Launch Date: October 04, 2012
Launch site: Kibo Japanese Experiment Module, International Space
Station

Status: Operational

Uplink:
Downlink(s): 437.445MHz 1k2 AFSK
5840.00 MHz 115k2 data
LED CW (200w pulses)

Beacon(s): 437.250 MHz CW

Callsign: NIWAKA

URL: http://carpcomm.com/satellite/fitsat1
[10292012]
=====
TechEdSat
Catalog number: 38854
Launch date: October 04, 2012
Launch site: Kibo Japanese Experiment Module, International Space
Station

Uplink(s):
Downlink(s): 437.465 1k2 AFSK

Beacon(s):

Callsign:

URL:http://www.techedsat.com/
[10152012]
=====
We Wish
Catalog number: 38856
Launch date: October 04,2012
Launch Site: Kibo Japanese Experiment Module, International Space
Station

Uplink(s):
Downlink(s): 437.505MHz 1k2 AFSK
437.505MHz SSTV

Beacon(s): 437.505MHz CW

Callsign: JQ1ZIJ

URL:
[10152012]
=====
F-1
Catalog number: 38855
Launch Date: October 04, 2012
Launch Site: Kibo Japanese Experiment Module, International Space
Station

Uplink(s):
Downlink(s): 145.980MHz 1k2 AFSK

437.485MHz FM moduled CW

Baecon(s):

Callsign: XV1VN

URL: http://fspace.edu.vn/
[10152012]
=====
Aeneas
Catalog Number: 38760
Launch Date: September 13, 2012 2139z
Launch Site: Wallops Island, Virginia, USA

Status: On Orbit

Uplink: WiFi 2425MHz
Downlink:
WiFi: 2425MHz
Spread Spectrum: Somewhere in the 70cm band

Beacon: 437.600MHz 1k2 ax25 every 10 seconds

Callsign:

URL:
[10012012]
=====
Cinema
Catalog Number: 36764
Launch Date: September 13, 2012 2139z
Launch Site: Wallops Island, Virginia, USA

Status: On Orbit

Uplink:
Downlink:
Engineering: 2400 - 2450MHz
Telemetery: 2200 - 2300MHz

Beacon:

Callsign:

URL:
[10012012]
=====
CSSWE (Colorado Student Space Weather Experiment)
Catalog Number: 38761
Launch Date: September 12, 2012 2139z
Launch Site: Wallops Island, Virginia, USA

Status: On Orbit

Uplink:
Downlink: 437.345MHz 9k6 with ax.25

Beacon:

Callsign:

URL:
[10012012]
=====
CP5 (Polysat)
Catalog Number: 38763
Launch Date: September 12, 2012 2139z
Launch Site: Wallops Island, Virginia, USA

Status: On Orbit

Uplink:
Downlink: 437.405MHz AFSK on LSB ax.25 over NRZI at 1k2 baud,
every 2
minutes, begins 3.5 hours after first turn-on

Beacon:

Callsign:

URL:
[10012012]
=====
CXBN (Cosmic X-Ray Background Nanosatellite)
Catalog Number: 38762
Launch Date: September 12, 2012 2139z
Launch Site: Wallops Island, Virginia, USA

Status: On Orbit

Uplink:
Downlink: 437.525MHz GFSK ax.25

Beacon:

Callsign:

URL:
[10012012]
=====
Proiteres
Catalog Number: 38756
Launch Date: September 09, 2012 2139z
Launch Site: Satish Dhawan Space Centre, India

Status: On Orbit

Uplink:
Downlink: 437.485MHz FM/AFSK

Beacon:

Callsign: JL3YZK

URL:
[10012012]
=====
RS-40 MiR (Yubileiny-2)
Catalog Number: 38735
Launch Date: July 28, 2012
Launch Site: Plesetsk Missile and Space Complex, Russia

Status: On Orbit

Uplink:
Downlink(s): 435.265 MHz
435.365 MHz

Beacon:

Callsign:

URL:
[08272012]
=====
HORYU-II
Catalog number: 38340
Launch Date: May 17, 2012 1639z

Status: On Orbit

Uplink: 145.??? MHz
Downlink: 437.375 MHz CW/AX25/FSK

Beacon: 437.375 MHz CW

Callsign: JG6YBW

URL:

IARU Coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=216
[10012012]
=====
XaTcobeo
Catalog Number: 38082
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: Operational

Uplink:
Downlink: 437.365 MHz FFSK with AX.25

Beacon:

Callsign:

URL:

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=135
[100162012]
=====
UniCubeSat
Catalog Number: 38085(?)
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: Operational

Uplink:
Downlink: 437.305 MHz 9k6 bps GMSK

Beacon:

Callsign:

URL:
http://www.gaussteam.com/index.php?option=com_content&view=article&id=
96:unicu
besat&catid=36:unicubesat&Itemid=183

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=133
[10012012]
=====
Robusta
Catalog Number: 38083(?)
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: On Orbit

Uplink:
Downlink: 437.325 MHz 1k2 FM telemetry (data every 3 min, 20 sec.
burst)

Beacon:

Callsign:

URL:

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=122
[10012012]
=====
MO-72 MaSat-1
Catalog Number: 38081
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: Operational

Uplink:
Downlink: 437.345 MHz GFSK 625/1250 bps
437.345 MHz CW

Beacon:

Callsign:

URL:

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=126
[10012012]
=====
Goliat
Catalog Number: 38084(?)
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: Operational

Uplink:
Downlink: 437.485 MHz 1k2 AFSK

Beacon:

Callsign:

URL:

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=98
[10012012]
=====
E-St@r
Catalog Number: 38079
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: On Orbit

Uplink:
Downlink: 437.445 MHz 1k2 bps AFSK

Beacon:

Callsign:

URL:

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=130
[10012012]
=====
ALMASat-1
Catalog Number: 38078

Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: On Orbit

Uplink:
Downlink: 437.465 MHz 1k2 bps FSK
2407.850 MHz

Beacon:

Callsign:

URL:

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=39
[10012012]
=====
RS-39 Chibis-M
Catalog Number: 38051
Launch Date: October 30, 2011 10:11:00 UTC
Launch site: Tyuratam (Baikonur Cosmodrome), Kazakhstan

Status: Operational

Uplink:
Downlink:

Beacon: 435.315 MHz CW
435.215 MHz CW

Callsign:

URL:

IARU coordination status page:
[07302012]
=====
JUGNU
Catalog Number: 37839
Launch Date: October 12, 2011 05:30:00 UTC
Launch site: Satish Dhawan Space Centre, India

Status: On Orbit

Uplink: 145.??? MHz 1k2 (mode?)
Downlink: 437.505 MHz 9k6 (mode?)

Beacon: 437.275 MHz 15 wpm (?) CW

Callsign:

URL: http://www.iitk.ac.in/me/jugnu/index.htm

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=160
[07092012]
=====
SRMSAT
Catalog Number: 37841
Launch Date: October 12, 2011 05:30:00 UTC
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Uplink: 145.900 MHz 1k AX.25 (speed?)
Downlink: 437.500 MHz 2k4 AX.25

Beacon: 437.425 MHz 12 wpm CW

Callsign:

URL: http://srmsat.in/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=181
[01282013]
=====
HRBE (E1P Explorer 1 [Prime] CubeSat (E1P-U2))
Catalog Number: 37855
Launch Date: October 28, 2011
Launch site: Vandenberg Air Force Base, California, USA

Status: On Orbit

Uplink: 437.305 MHz (???)
Downlink: 437.505 MHz AX.25 (SSB?)

Beacon:

Callsign:

URL: http://ssel.montana.edu/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=116
[01122012]
=====
M-Cubed
Catalog Number: 37855
Launch Date: October 28, 2011
Launch site: Vandenberg Air Force Base, California, USA

Status: On Orbit

Uplink:
Downlink: 437.485 MHz AX.25

Beacon:

Callsign:

URL: http://umcubed.org/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=215
[01122012]
=====
RAX-2
Catalog Number: 37853
Launch Date: October 28, 2011
Launch site: Vandenberg Air Force Base, California, USA

Status: Operational

Uplink:
Downlink: 437.345MHz 9k6 GMSK

Beacon:

Callsign:

URL: http://rax.engin.umich.edu//

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=221
[03232012]
=====
AO-71 AubieSat-1
Catalog Number: 37854
Launch Date: October 28, 2011
Launch site: Vandenberg Air Force Base, California, USA

Status: On Orbit

Uplink:
Downlink: 437.475 MHz 1k2 AX.25

Beacon: 437.475 MHz CW

Callsign: KI4NQO

URL: http://www.space.auburn.edu/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=148
[12262011]
=====
O/OREOS
Catalog Number: 37224
Launch Date: November 20, 2010
Launch site: Kodiak Launch Complex, Alaska, USA

Status: On Orbit

Uplink:
Downlink: 437.035 MHZ AX.25

Beacon:

Callsign:

URL: http://www.ooreos.org/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=146
[02092011]
=====
Rax-1 Radio Aurora Explorer
Catalog Number: 37223
Launch Date: November 20, 2010
Launch site: Kodiak Launch Complex, Alaska, USA

Status: On Orbit

Uplink:
Downlink: 437.505 MHz 9k6 GMSK

Beacon:

Callsign: RAX-1

URL: http://rax.engin.umich.edu/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=165
[02092011]
=====
FO-69 Fastrac-1 Sara Lily
Catalog Number: 37227
Launch Date: November 20, 2010
Launch site: Kodiak Launch Complex, Alaska, USA

Status: Operational

Uplink 1: 145.980 MHz 1k2 baud
Uplink 2: 145.825 MHz 1k2 baud
Downlink: 437.345 MHz 1k2 and 9k6 baud

Beacon: 437.435 MHz 1k2 AX.25

Callsign: Fast1

URL: http://fastrac.ae.utexas.edu/index.php

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=83
[07052011]
=====
FO-70 Fastrac-2 Emma
Catalog Number: 37380

Launch Date: November 20, 2010
Launch site: Kodiak Launch Complex, Alaska, USA

Status: Operational

Uplink 1: 435.025 MHz 1k2 baud
Uplink 2: 437.435 MHz 9k6 baud
Downlink: 145.825 MHz 1k2 and 9k6 baud

Beacon: 145.825 MHz 1k2 AX.25

Callsign: Fast2

URL: http://fastrac.ae.utexas.edu/index.php

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=84
[12162011]
=====
StudSat
Catalog Number: 36796
Launch Date: July 12, 2010 0352z
Launch site: Satish Dhawan Space Centre, India

Status: On Orbit

Uplink: 437.505MHz, 9600bps FSK
Downlink: 437.505MHz, 9600bps FSK
Beacon : 437.505MHz, 20bps ASK

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=164
[02092011]
=====
TIsat-1
Catalog Number: 36799
Launch Date: July 12, 2010 0352z
Launch site: Satish Dhawan Space Centre, India

Status: On orbit

Callsign: HB9DE

Uplink: 145.980MHz FM, AFSK
Downlink: 437.305MHz FM, AFSK
Beacon: 437.305MHz CW

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=118
[02092011]
=====
SwissCube
Catalog Number: 35932
Launch Date: September 23, 2009 0621z

Launch site: Satish Dhawan Space Centre, India

Status: Operational

Callsign: HB9EG

Beacon(100mw): 437.5050MHz CW
Beacon(1w): 437.5050MHz FSK 1k2bps

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=109
[02092011]
=====
UWE-2
Catalog Number: 35934
Launch Date: September 23, 2009 0621z
Launch site: Satish Dhawan Space Centre, India

Status: In Orbit

Beacon(500mw): 437.3850 MHz AFSK 1k2bps
437.3850 MHz FSK 9k6bps

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=110
[02092011]
=====
ITUpsAT1
Catalog Number: 35935
Launch Date: September 23, 2009 0621z
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Beacon(100mw): 437.325MHz CW
Beacon(1w): 437.325MHz 19k2bps

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=113
[02092011]
=====
BEESAT
Catalog Number: 35933
Launch Date: September 23, 2009 0621z
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Callsign: DP0BEE

Beacon(100mw): 436.000MHz CW
Beacon(500mw): 436.000MHz GMSK 4k8bps
Beacon(500mw): 436.000MHz GMSK 9k6bp
[02092011]

=====
HAWKSAT 1
Catalog number: 35004
Launch Date: May 19, 2009 2355z
Launch site: Wallops Island, Virginia, USA

Status: operational

Downlink: 437.345 MHz ?

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=105
[07302012]
=====
ANUSAT
Catalog Number: 34808
Launch Date: April 20, 2009 0115z
Launch Site: Satish Dhawan Space Centre, India

Status: ?

Downlink: 435.000 MHz
Uplink: 145.800 MHz

Telemetry: 137.400 MHz
[02092011]
=====
SOHLA-1 (ASTRO TECH.)
Catalog Number: 33496
Launch Date: January 23, 2009 0354z
Launch site: Tanegashima Space Center, Japan

Status: Operational

Proposed Frequencies and Modes:
Downlink: 437.505 MHz AFSK/CW
Beacon: 437.505 MHz AFSK/CW

Callsign:

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=101
[02092011]
=====
KAGAYAKI (Solan Co.)
Catalog Number: 33495
Launch Date: January 23, 2009 0354z
Launch site: Tanegashima Space Center, Japan

Status: In Orbit

Downlink: 437.375 MHZ FSK9k6/CW
Beacon: 437.375 MHz FSK9k6/CW

IARU coordination status page:

AMSAT-NA webpage:

[02092011]
=====
STARS (Kagawa Univ.) (Twin Satellites)
Catalog Number: 33498
Launch Date: January 23, 2009 0354z
Launch site: Tanegashima Space Center, Japan

Status: Operational ?

Downlinks: 437.485 MHz FM/CW
437.465 MHz FM/CW
Beacons: 437.305 MHz FM/CW
437.275 MHz FM/CW

Callsigns: JR5YBN
JR5YBO

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=99

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=121&retURL
=/satellites/status.php
[02092011]
=====
KKS-1 (Tokyo MCIT)
Catalog Number: 33499
Launch Date: January 23, 2009 0354z
Launch site: Tanegashima Space Center, Japan

Status: Operational

Downlink: 437.455 MHz AFSK/CW
Beacon: 437.385 MHz AFSK/CW

Callsign: JQ1YYY

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=107

AMSAT-NA webapge:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=120&retURL
=/satellites/status.php
[20092011]
=====
PRISM (Tokyo Univ.)
Catalog Number: 33493
Launch Date: January 23, 2009 0354z
Launch site: Tanegashima Space Center, Japan

Status: Operational

Uplink: 145.xxx MHz AFSK 1k2
Downlink: 437.425 MHz AFSK 1k2
Beacon: 437.250 MHz CW

Callsign: JQ1YCX

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=97

Read terms and conditions of operations at the PRISM web page to find
out how
to properly operate on the satellite and to get the uplink frequency.
It
has
been asked that the uplink frequency not be given out untik you have
read and
understood the terms of usage.

URL:
http://www.space.t.u-tokyo.ac.jp/prism/en/HAMservice.html
[10282012]
=====
RS-30 Radio Sputnik 30 (Yubileiny)
Catalog Number: 32953
Launch Date: May 23, 2008 1520z
Launch site: Plesetsk Missile and Space Complex, Russia

Status: Operational

Curent Modes: Telemetry
Audio
Images

Downlinks: 435.315 MHz
435.215 MHz

AMSAT-NA website:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=115&ret
URL=/satellites/status.php

Official website:
http://www.npopm.com/?cid=leoca&caid=43
[02092011]
=====
CanX-2
Catalog number: 32790
Launch Date: April 28, 2008 0354z
Launch site: Satish Dhawan Space Centre, India

Status: Operational in range of ground station only

Downlink: 437.478 MHz GFSK

For the latest project status update please visit the Can X-2 web
page: http://www.utias-sfl.net/nanosatellites/CanX2/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=46
[02092011]
=====
AAUSAT-II
Catalog number: 32788
Launch Date: April 28, 2008 0354z
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Downlink: 437.425 MHz 1k2 baud packet

For the latest project status update please visit the AAUSAT-II web
page:
http://www.aausatii.aau.dk/homepage/index.php?language=en&page=home

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=60
[02092011]
=====
CO-65 CUTE-1.7+APD II
Catalog number: 32785
Launch Date: April 28, 2008 0354z
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Downlink: 437.475 MHz 9k6 Packet
Uplink: 1267.600 Mhz

Telemetry Beacon:
Downlink: 437.2750 MHz CW

For the latest project status update please visit the Cute-1.7+APD II
web page: http://lss.mes.titech.ac.jp/ssp/cute1.7/index_e.html

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=78

Command Station blog website:
http://lss.mes.titech.ac.jp/ssp/cute1.7/blog/

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=112&retURL
=/satellites/status.php
[03232012]
=====
Compass-1
Catalog number: 32787
Launch Date: April 28, 2008 0354z
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Current Mode: dependant on last received command

Uplink: 145.980 MHz FM
Downlink: 437.275 Mhz CW
437.405 MHz Packet

For the latest project status update please visit the Compass 1 web
page: http://www.raumfahrt.fh-aachen.de/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=52

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=114&retURL
=/satellites/status.php
[06162011]
=====
CO-66 Seeds II
Catalog number: 32791
Launch Date: April 28, 2008 0354z
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Downlink: 437.485 MHz

Callsign: JQ1YGU

For the latest project status update please visit the Seeds 2 web
page: http://cubesat.aero.cst.nihon-u.ac.jp/english/seeds_2_e.html

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=36

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=113&retURL
=/satellites/status.php
[073092011]
=====
CAPE-1
Catalog Number: 31130
Launch Date: April 17,2007 0702z
Launch site: Baikonur, Kazakhstan

Status: Intermittent

Current Mode: /u

TLM Downlink: 435.245 MHz 9600 bs FSK AX.25
CW Beacon: 435.245 MHz CW

Callsign: K5USL

TLM and CW interchange every 30 seconds.

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=94&retURL=
/satellites/status.php

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=72
[02092011]
=====
CP3
Catalog Number: 31129
Launch Date: April 17,2007 0702z
Launch site: Baikonur, Kazakhstan

Status: Operational

Current Mode: /u

Downlink: 436.845 MHz 1200 bps AFSK AX.25

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=74
[02092011]
=====
CO-58 CubeSat XI-V
Catalog number: 28895
Launch Date: October 27, 2005 0652z
Launch site: Plesetsk Missile and Space Complex, Russia

Status: Operational - CW Beacon only

Current Mode: /u

Telemetry Downlink: 437.4250 MHz AFSK 1200bps using AFK protocol
Beacon: 437.2750 MHz CW

Callsign: JQ1YGW

Official Webpage: http://www.space.t.u-tokyo.ac.jp/cubesat/mission/V/

Pictures received by Mineo Wakita - JE9PEL:
http://www.ne.jp/asahi/hamradio/je9pel/xivpicte.htm

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=37
[02092011]
=====
CO-57 CubeSat XI-IV
Catalog number: 27848
Launch date: June 30, 2003 1415z
Launch site: Plesetsk Missile and Space Complex, Russia

Status: ?????

Current Mode: /u

Beacon: 436.8475 MHz CW
Telemetry : 437.4900 MHz AFSK 1200 BPS

Callsign: JQ1YGW

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=96&retURL
=/satellites/status.php

Official Webpage: http://www.space.t.u-tokyo.ac.jp/cubesat/mission/V/
[02092011]
=====
QuakeSat
Catalog Number: 27845
Launch Date: June 30, 2003 1415z
Launch site: Plesetsk Missile and Space Complex, Russia

Status: Telemetry only

Current Mode: 9600 baud data packet

Mode U packet
Downlink: 436.675 MHz 9k6 BPS

Quakesat webpage:
http://www.quakefinder.com/services/quakesat-ssite/
[02252011]
=====
CO-55 Cute-1.7+APD II
Catalog Number: 27844
Launch date: June 30, 2003 1415z
Launch site: Plesetsk Missile and Space Complex, Russia

Status: Operational

Current Mode: CW downlink worldwide
AX25 Packet with uplink command over Japan only

Mode U Telemetry
Downlink: 437.4000 MHz AFSK 1200 BPS

Mode U TLM Beacon
Downlink: 436.8375 MHz CW

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=69&retURL
=/satellites/status.php

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=78
[02092011]
=====
NO-44 PCSAT
Catalog number: 26931
Launch Date: September 30, 2001 0240z

Launch site: Kodiak Launch Complex, Alaska, USA

Status: Operational

Current Mode: V/v

General Usage Uplink/Downlink: 145.827 MHz 1200 Baud
Special Usage Downlink: 144.390 Mhz 1200 Baud

PCSAT APRS page: http://pcsat.aprs.org

aprstlm Telemetry Decoder program:
http://www.xciv.org/~iain/aprstlm/v1.2/
[10292012]
=====
RS-22 RADIO SPORT 22 (MOZHAYETS 4)
Catalog number: 27939
Launch Date: September 27, 2003 0612z
Launch site: Plesetsk Missile and Space Complex, Russia

Status: Operational - 70cm cw only

Current Mode: /u

CW Beacon - 435.352 MHz
145.818 MHz

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=76&retURL
=/satellites/status.php
[02092011]
=====
LO-19 LUSAT
Catalog number: 20442
Launch date: January 22, 1990
Launch site: Kourou, French Guiana

Status: CW Beacon only

Uplinks: 145.840 MHz 1200-baud Manchester FSK
145.860 MHz 1200-baud Manchester FSK
145.880 MHz 1200-baud Manchester FSK
145.900 MHz 1200-baud Manchester FSK

CW downlink: 437.125 MHz

Digital downlink: 437.150 MHz SSB (RC-BPSK 1200-baud PSK)

Broadcast Callsign: LUSAT-11
BBS: LUSAT-12

General information and telemetry samples can be found at:
www.telecable.es/personales/ea1bcu
[02092011]
=====

UO-11 OSCAR-11
Catalog number: 14781
Launch Date: March 1, 1984
Launch site: Vandenburg AFB, California, USA

Status: Operational ?

Current Mode: /v

Telemetry Downlink: 145.825 MHz FM 1200 AFSK
UHFBeacon: 435.025 MHz
Mode-S Beacon: 2401.500 MHz

Mode and Antenna Polarization:
V: RHCP
S: LHCP

Webpage: http://www.users.zetnet.co.uk/clivew/
MPEG3 files: http://www.ne.jp/asahi/hamradio/je9pel/uo11tlme.htm
[07052011]
=====
INTERNATIONAL SPACE STATION (ISS) - ARISS
Catalog number: 25544
Launch date: November 20, 1998 0640z (ZARYA module)
Launch sites: Baikonur, Kazakhstan
Kourou, French Guiana
Uchinoura Space Center, Japan
Kennedy Space Center, Titusville, Florida, USA

Status: Operational

Current Active Modes: FM Repeater - OFF
Voice - V/v
BBS - V/v
2m APRS - V/v
2m Digi - V/v
70cm APRS - ?
70cm Digi - ?
SSTV - V/v

Expedition 34 Crew (November 2012 - March 2013):
Commander: Kevin Ford KF5GPP
Flight Engineer: Oleg Novitskiy
Flight Engineer: Evgeny Tarelkin
Flight Engineer: Roman Romanenko
Flight Engineer: Chris Hadfield KC5RNJ/VA3OOG
Flight Engineer: Tom Marshburn KE5HOC

Available Modes and Frequencies:
Digital/APRS:
Worldwide 2m packet uplink: 145.825 MHz FM 1k2
Worldwide 2m packet downlink: 145.825 Mhz FM 1k2
Worldwide 70cm packet uplink: 437.550 Mhz FM 1k2

Worldwide 70cm packet downlink: 437.550 Mhz FM 1k2

Voice:
Region 1 voice uplink: 145.200 MHz FM
Region 2/3 voice uplink: 144.490 MHz FM
Worldwide downlink: 145.800 MHz FM

Crossband Repeater:
Repeater Uplinks: 1269.650 MHz FM
437.800 MHz FM
145.990 MHz FM - 67.0 PL (Kenwood)
Repeater Downlink: 145.800 MHz FM
437.800 MHz FM (Kenwood)

SSTV Robot 36:
Downlink: 145.800 MHz FM

Mode and Antenna Polarization:
V: Linear
U: Linear

Callsigns:
Belgian: OR4ISS
German: DP0ISS
Russian: RS0ISS
RZ3DZR
United States: NA1SS
2m Packet Mailbox: RS0ISS-11
2m Digipeater alias: ARISS
70cm Packet Mailbox: RS0ISS-1
70cm Digipeater callsign: RS0ISS
70cm Digipeater alias: ARISS

Official ARISS Webpage: http://www.rac.ca/ariss
ISS Fan Club Webpage: http://www.issfanclub.com
APRS tracking page: http://www.ariss.net/

ISS Daily Crew Schedule: http://spaceflight.nasa.gov/station/timelines
Remember that the crew operates on UTC time. Also, all of the time
line is NOT translated from Russian and posted.
[12242012]
NNNN
/EX

SB SAT @ AMSAT W8ISS $WSR-035.S3
WSR 035 Part 3 02/04/2013

AMSAT NEWS SERVICE BULLETIN 035.S3
FROM AMSAT HQ SILVER SPRING, MD, February 04, 2013
TO ALL RADIO AMATEURS
BID: $WSR-035.S3

THE FOLLOWING ARE IN ORBIT BUT ARE NON-OPERATIONAL AT THIS TIME:

NANOSAIL-D
Catalog Number: 37361
Ejection Date: January 17, 2011

Status: Non - Operational

Downlink: 437.270 MHz AX.25

URL: http://nanosaild.engr.scu.edu/dashboard.htm

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=115
[07302012]
=====
HO-68 HOPE-1 (CAS-1) (XW-1)
Catalog Number: 36122
Launch Date: December 15, 2009 0231z
Launch site: Taiyuan Space Center, PRC

Status: Telemetry only

Callsign:
Broadcast: BJ1SA-11
BBS: BJ1SA-12

Uplinks: 145.8250 MHz FM, PL 67.0 Hz.
145.9250 - 145.9750 MHz SSB/CW
145.8250 MHz AFSK 1200 BPS
Downlinks: 435.6750 MHz FM
435.7650 - 435.7150 MHz SSB/CW
435.6750 MHz AFSK 1200 BPS

Beacon: 435.7900 MHz CW

Mode and Antenna Polarization:
V: LHCP 2.0dBi max
U: RHCP 3.0dBi max

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=108

For more information about XW-1 (CAS-1):
http://
[04302012]
=====
SO-67 SumbandilaSat
Catalog Number: 35870
Launch Date: September 17, 2009 1555z
Launch site: Baikonur, Kazakhstan

Status: Non - Operational

Callsign: ZS0SUM

Uplink: 145.875MHz FM tone 233.6 Hz
Downlink: 435.345MHz FM

Mode and Antenna Polarization:
V: Linear
U: Linear

For more information about SO-67:
http://www.amsatsa.org.za/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=88
[01272012]
=====
CP4
Catalog Number: 31132
Launch Date: April 17, 2007

Status: Non-Operational

Current Mode: /u

TLM Downlink: 437.325 MHz 1200 bps FSK AX.25
CW Beacon: 437.325 MHz CW

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=79
[09062010]
=====
LIBERTAD-1
Catalog Number: 31128
Launch Date: April 17, 2007

Status: Non-Operational

Current Mode: V/u APRS Packet ax25

Callsign: 5K3L

Uplink: 145.825 MHz 1200 AFSK ax25 APRS
Downlink: 437.399 MHz 1200 AFSK ax25 APRS

Telemetry Beacon: 437.4050 MHz 1200 AFSK ax25

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=76
[09062010]
=====
PO-63 PEHUENSAT-1
Catalog Number: 29712
Launch Date: January 10, 2007

Status: Non-Operational

Current Mode: V/v

Uplink/Downlink: 145.825 Mhz FM
Voice Recorder: 145.825 Mhz FM

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=51
[09062010]
=====
NCUBE-2
Catalog number: 28897
Launch Date: October 27, 2005

Status: Still attached to XO-53 (SSETI)?

Proposed Callsign: TBA
Proposed Transmit Frequency: 437.305
2407.250

Official Website: http://www.ncube.no

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=24
[09062010]
=====
XO-53 SSETI
Catalog number: 28894
Launch Date: October 27, 2005

Status: Non-operational

Voice Uplink: 437.250 MHz FM 67Hz CTCSS
Voice Downlink: 2401.835 MHz FM
Packet Up/Downlink: 437.250 MHz 9k6 packet
Packet Downlink 2401.835 MHz 38k4 packet

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=54
[09062010]
=====
UWE-1
Catalog Number: 28892
Launch Date: October 27, 2005

Status: Non-Operational

Mode U Telemetry
Downlink: 437.5050 MHz 9600 AFSK

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=53
[09062010]
=====
AO-51 ECHO
Catalog number: 28375
Launch date: June 29, 2004 0745z
Launch site: Baikonur, Kazakhstan

Status: Non - Operational

Current Mode(s):
Voice repeater: V/u
Uplink: 145.880 MHz FM
Downlink: 435.150 MHz FM

Telemetry: Recovery efforts
Downlink: 435.150MHz 9k6

Analog voice downlink: 435.300 MHz FM
435.150 MHz FM
2401.200 Mhz FM
Analog voice uplink: 145.860 MHZ FM
145.880 MHz USB
145.880 MHz FM
145.920 MHz FM
145.920 MHz FM - 67 Hz PL tone burst
1268.705 MHz FM
Digital Downlinks: 435.150 MHz FM 38k4 PBP, 1 watt output
435.150 MHz FM 9k6 Pacsat Broadcast
Protocol
2401.200 MHz FM 38k4 bps, AX.25
Digital Uplink: 145.860 MHz FM 9k6 Pacsat Broadcast
Protocol
1268.703 mhz FM 9k6 Pacsat Broadcast
Protocol
Beacon: 435.150 MHz

Mode and Antenna Polarization:
T: Linear
V: Linear
U: TX A (usually digital)LHCP
TX B (usually analog) RHCP
L: Linear
S: Linear

Broadcast: PECHO-11
BBS: PECHO-12

Official Webpage: http://www.amsat.org/amsat-new/echo/CTNews.php

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=19
[12062011]
=====
CANX-1
Catalog Number: 27847
Launch Date: June 30, 2003

Status: Non-Operational

Downlink: 437.8800 MHz AFSK 1k2bps
[06052009]
=====
DTUSAT

Catalog Number: 27842
Launch Date: June 30, 2003

Status: Non-Operational

Current Mode: 2k4 AFSK Packet last reported

Downlink: 437.475MHz

Officail webpage: http://dtusat1.dtusat.dtu.dk/

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=101&retURL
=satellites/all_oscars.php
[02212009]
=====
AO-49 AATiS OSCAR-49 (SAFIR-M)
Catalog number: 27605
Launch Date: December 20, 2002

Status: Non-operational.

Uplink: 435.275 MHz 1200-baud AFSK
Downlink: 145.825 MHz 9600-baud FSK
(optional voice message)

Broadcast callsign: DP0AIS

Official webpage: http://amend.gmxhome.de
[01222007]
=====
MO-46 TIUNGSAT-1
Catalog number: 26548
Launch date: September 26, 2000

Status: Telemetry only

Uplinks: 145.850 MHz
145.925 MHz 9600-baud FSK
Downlink: 437.325 MHz

Broadcast callsign: MYSAT3-11
BBS: MYSAT3-12

TiungSat-1 is Malaysia's first micro-satellite and in addition to
commercial land and weather imaging payloads offers FM and FSK
Amateur Radio communication.

TiungSat-1, named after the mynah bird of Malaysia, was developed as
a collaborative effort between the Malaysian government and Surrey
Satellite Technology Ltd.
[03302009]
=====
NO-45 SAPPHIRE
Catalog number: 26932

Launch Date: September 30, 2001

Status: Non-Operational

Downlink: 437.095 MHz 1200 baud AX-25 AFSK
Uplink: 145.945 MHz UI Digipeater
Digi Callsign: KE6QMD

Everyone is welcome to use the digipeating/APRS features of Sapphire,
as per the user service agreement located at the following URL:
http://web.usna.navy.mil/~bruninga/pcsat/contract.txt
[03132005]
=====
SO-42 SAUDISAT-1B
Catalog number: 26549
Launch date: September 26, 2000

Status: Non-Operational

Downlink: 437.075 MHz

Broadcast Callsign: SASAT2-11
BBS: SASAT2-12

Further information is available at:
http://www.amsat.org/amsat/sats/n7hpr/so42.html
[01222007]
=====
SO-41 SAUDISAT-1A
Catalog number: 26545
Launch Date: September 26, 2000

Status: Non-Operational

Uplink: 145.850 MHz
Downlink: 436.775 MHz

Broadcast Callsign: SASAT1-11
BBS: SASAT1-12

Further information is available at:
http://www.amsat.org/amsat/sats/n7hpr/so41.html
[01222007]
=====
AO-40 AMSAT OSCAR 40
Catalog number: 26609
Launch Date: November 16, 2000

Status: Non-Operational

Uplinks

V-band: 145.840 - 145.990 MHz CW/LSB
U-band: 435.550 - 435.800 MHz CW/LSB

L1-band: 1269.250 - 1269.500 MHz CW/LSB
L2-band: 1268.325 - 1268.575 MHz CW/LSB

Downlinks

S2-band: 2401.225 - 2401.475 MHz CW/USB
K-band: 24048.010 - 24048.060 MHz CW/USB
Beacon: 2401.323 MHz
24048.035 MHz

P3-D Telemetry Beacons (IHU)

BEACON General Beacon(GB) Middle Beacon(MB) Engineering Beacon(EB)
2 m none 145.898 MHz none
70cm 435.438 MHz 435.588 MHz 435.838 MHz
13cm(1) 2400.188 MHz 2400.338 MHz 2400.588 MHz
13cm(2) 2401.173 MHz 2401.323 MHz 2401.573 MHz
3cm 10450.975 MHz 10451.125 MHz 10451.375 MHz
1.5cm 24047.885 MHz 24048.035 MHz 24048.285 MHz
[07162007]
=====
OO-38 OPAL
Catalog Number: 26063
Launch Date: January 27, 2000

Status: Non-Operational

Mode U TLM Beacon
Downlink: 437.1000 MHz 9600 FSK
[08132007]
=====
UO-36 UoSAT-12
Catalog number: 25693
Launch date: April 21, 1999

Status: Unknown

Uplink: 145.960 MHz (9600-baud FSK)
Downlinks: 437.025 MHz
437.400 MHz

Broadcast Callsign: UO121-11
BBS: UO121-12

The VK5HI viewer shareware for UO-36 is available on the AMSAT-NA web
site at the following URL:
ftp://ftp.amsat.org/amsat/software/win32/display/ccddsp97-119.zip
[01222007]
=====
SO-35 SUNSAT
Catalog Number: 25636
Launch date:February 23, 1999

Status: Non-Operational

Downlink: Mode B Repeater: 436.291 MHz
Mode J Digipeater: 436.250 MHz

Uplinks: Mode B Repeater: 145.825 MHz
Mode J Digipeater: 145.825 MHz
145.900 MHz

For more information of SUNSAT vist the satellite web site:
http://esl.ee.sun.ac.za/projects/sunsat/
[01222007]
=====
PO-34 PANSAT
Catalog number: 25520
Launch date: October 30, 1998

Status: Telemetry downloads only

Uplink/downlink: 436.500 MHz

Official Webpage: http://www.sp.nps.navy.mil/pansat/
[05092004]
=====
SO-33 SEDSAT-1
Catalog number: 25509
Launch date: October 24, 1998

Status: Semi-operational

Downlink: 437.910 MHz FM (9600-baud FSK)

The satellite is not currently available for uplink transmissions and
the image and transponder recovery efforts have been unsuccessful.

For more information on SedSat-1 visit the satellite web site:
http://seds.uah.edu/projects/sedsat/sedsat.htm
[09042006]
=====
GO-32 Gurwin TechSat-1B
Catalog number: 25397
Launch Date: July 10, 1998

Status: Non-Operational

Current Modes:
Telemetry : /u

Downlink: 435.225 MHz FM (9600-baud FSK)
435.325 Mhz - Not Available - temperature problems
Uplinks: 145.850 FM
145.890 FM
145.930 FM
1269.700 FM
1269.800 FM

1269.900 FM

Broadcast Callsign: 4XTECH-11
BBS Callsign: 4XTECH-12

More information of GO-32 can be found at:
http://asri.technion.ac.il/techsat/

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=14&retURL
=/satellites/status.php
[07172010]
=====
TO-31 TMSAT-1
Catalog number: 25396
Launch Date: July 10, 1998

Status: Non-operational

Uplink: 145.925 MHz 9600 baud FSK
Downlink: 436.925 MHz 9600 baud FSK

Broadcast callsign: TMSAT1-11
BBS: TMSAT1-12
[05012006]
=====
MO-30 UNAMSAT-2
Catalog Number: 24305
Launch Date: September 5, 1996

Status: Non-operational

Downlink: 435.1380 MHz AFSK 1200 BPS
Downlink: 435.2060 MHz AFSK 1200 BPS
Uplink: 145.8150 MHz AFSK 1200 BPS
Uplink: 145.8350 MHz AFSK 1200 BPS
Uplink: 145.8550 MHz AFSK 1200 BPS
Uplink: 145.8750 MHz AFSK 1200 BPS
[06042009]
=====
PO-28 POSAT-1
Catalog number: 22829
Launch Date: September 25, 1993

Status: Non-operational

Downlink: 429.950
Uplink: Not until handover back to Amatuer usage

Broadcast callsign: POSAT1-11
BBS callsign: POSAT1-12

AMSAT Webpage: http://www.amsat.org/amsat/sats/n7hpr/po28.html
POSAT-1 webpage:

http://www.ee.surrey.ac.uk/SSC/CSER/UOSAT/missions/posat1.html
[01012009]
=====
AO-27 AMRAD
Catalog number: 22825
Launch Date: September 26, 1993 0140z
Launch site: Kourou, French Guiana

Status: Recovery efforts in progress

Current Mode: V/u

Uplink: 145.850 MHz FM
Downlink: 436.797 MHz FM

Mode and Antenna Polarization:
V: Linear
U: Linear

Official Webpage: http://www.ao27.org
[12032012]
=====
IO-26 ITAMSAT
Catalog number: 22826
Launch Date: September 26, 1993 0140z

Status: PSK carrier only

Current Mode:

Uplinks: 145.875 MHz FM 1200-baud
145.900 MHz FM 1200-baud
145.925 MHz FM 1200-baud
145.950 MHz FM 1200-baud

Downlink: 435.808 MHz PSK

Broadcast Callsign: ITMSAT-11
BBS: ITMSAT-12

Official webpage: http://www.itamsat.org
AMSAT Webpage: http://www.amsat.org/amsat/sats/n7hpr/io26.html
[01212007]
=====
KO-25 KITSAT
Catalog number: 22828
Launch date: September 26, 1993

Status: Non-operational

Uplink: 145.980 MHz FM 9600-baud FSK
Downlink: 436.500 MHz FM

Broadcast Callsign: HL02-11
BBS: HL02-12

[05092004]
=====
AO-24 ARSENE
Catalog Number: 22654
Launch Date: May 13, 1993

Status: Non-operational

Uplink: 435.0625 MHz FM 1k2bps AFSK
435.1125 MHz FM 1k2bps AFSK
435.1375 MHz FM 1k2bps AFSK
Downlink: 145.9750 MHz FM 1k2bps AFSK
2446.5025 MHz FM 1k2bps AFSK

Beacon: 2446.4700 MHz CW

Broadcast callsign:
BBS:
[12162009]
=====
KO-23 KITSAT
Catalog number: 22077
Launch date: August 10, 1992

Status: Non-operational

Uplink: 145.900 MHz FM (9600-baud FSK)
Downlink: 435.170 MHz FM

Broadcast Callsign: HLO1-11
BBS: HLO1-12
[01222007]
=====
UO-22 UOSAT
Catalog number: 21575
Launch date: July 17, 1991

Status: Non-Operational

Uplink: 145.900 FM 9600-baud FSK
Downlink: 435.120 MHz FM

Broadcast Callsign: UOSAT5-11
BBS: UOSAT5-12
[01222007]
=====
AO-21 AMSAT-OSCAR 21
Catalog Number: 21087
Launch Date: January 29, 1991

Status: Non-Operational

Uplink: 435.041 MHz FM DSP
Downlink: 145.983 MHz FM DSP

[01222007]
=====
FO-20 JAS-1b
Catalog number: 20480
Launch Date: February 07, 1990

Status: Non-Operational

Beacons: 435.795 MHz CW
435.910 MHz AX25

Voice Transponder:
Uplink: 145.900 to 146.000 MHz CW/LSB
Downlink: 435.800 to 435.900 MHz CW/USB

Digital Transponder:
Uplinks: 145.850 MHz
145.870 MHz
145.890 MHz
145.910 MHz
Downlink: 435.910 MHz

More FO-20 info can be found at:
http://www.amsat.org/amsat/sats/n7hpr/fo20.html
[01152007]
=====
WO-18 WEBERSAT
Catalog Number: 20441
Launch Date: January 22, 1990

Status: Non-Operational

Downlink: 437.104 MHz SSB 1200 Baud PSK AX.25
[05012006]
=====
DO-17 Dove
Catalog Number: 20440
Launch Date: January 22, 1990

Status: Non-operational.

Downlink: 145.825 MHz FM 1200 Baud AFSK
Beacon: 2401.220 MHz
[05012006]
=====
AO-16 PACSAT
Catalog number: 20439
Launch Date: January 22, 1990

Status: non-operational

Current Mode: V/u

Uplink: 145.900 MHz FM 1200-baud Manchester FSK (reserved)
145.920 MHz FM VOICE
145.940 MHz FM 1200-baud Manchester FSK (reserved)
145.960 MHz FM 1200-baud Manchester FSK (reserved)

Downlink: 437.026 MHz USB VOICE
(1200-baud PSK - MBL Telemetry Only)

Mode-S Beacon: 2401.1428 MHz [NO FUTURE OPERATIONS PLANNED]

Mode and Antenna Polarization:
U: RC 437.050 MHz RHCP
PSK 437.026 MHz LHCP
V: Linear

Broadcast Callsign: PACSAT-11
BBS: PACSAT-12

AO-16 AMSAT Webpage: http://www.amsat.org/amsat/sats/n7hpr/ao16.html
[07242009]
=====
UO-15 UoSAT-4
Catalog Number: 20438
Launch Date: January 22, 1990

Status: Non-operational

Uplink: ?
Downlink: 435.1250MHz (?)
435.1200MHz (?)
[06042009]
=====
UO-14 UoSAT-3
Catalog number: 20437
Launch date: January 22, 1990

Status: Non-operational

Uplink: 145.975 MHz FM
Downlink: 435.070 MHz FM
[05092004]
=====
FO-12 Fuji-OSCAR 12
Catalog Number: 16909
Launch Date: August 12, 1986

Status: Non-Operational

Mode V/U (J) Linear Transponder (Inverting):
Uplink: 145.9000 - 146.0000 MHz SSB/CW
Downlink 435.8000 - 435.9000 MHz SSB/CW

Mode V/U (J) Packet:
Uplink: 145.8500 MHz MFSK 1200 BPS
Uplink: 145.8700 MHz MFSK 1200 BPS

Uplink: 145.8900 MHz MFSK 1200 BPS
Uplink: 145.9100 MHz MFSK 1200 BPS

Downlink 435.9100 MHz PSK 1200 BPS

Telemetry Beacon: 435.7950 MHz SSB/CW
[01152007]
=====
AO-10 OSCAR 10
Catalog number: 14129
Launch Date: June 16, 1983

Status: Non-operational

Uplink: 435.030 to 435.180 MHz CW/LSB
Downlink: 145.975 to 145.825 MHz CW/USB

Beacon: 145.810 MHz (unmodulated carrier)

W4SM has more information about the satellite at the following URL:
http://www.cstone.net/~w4sm/AO-10.html
[05092004]
=====
AO-8 AMSAT-OSCAR 8
Catalog Number: 10703
Launch Date: March 3, 1978

Status: Non-Operational

Mode V/U (J) Linear Transponder (Non-Inverting): Non-Operational
Uplink: 145.9000 - 146.0000 MHz SSB/CW
Downlink 435.1990 - 435.2000 MHz SSB/CW

Mode V/U (J) TLM Beacon: Non-Operational
Downlink 435.0950 MHz CW

Mode V/A (A) Linear Transponder (Non-Inverting): Non-Operational
Uplink: 145.8500 - 145.9000 MHz SSB/CW
Downlink 29.4000 - 29.5000 MHz SSB/CW

Mode V/A (A) TLM Beacon: Non-Operational
Downlink 29.4020 MHz CW
[01152007]
=====
AO-6 AMSAT-OSCAR 6
Catalog Number: 06236
Launch Date: October 15, 1972

Status: Non-Operational

Uplink: 145.9000 - 146.0000 MHz SSB/CW
Downlink: 29.4500 - 29.5500 MHz SSB/CW
Beacons: 29.450 MHz
435.100 MHz

[01312008]
=====
AO-5 Australis-OSCAR 5
Catalog Number: 04321
Launch Date: January 23, 1970

Status: Non-Operational

Telemetry Beacons: 144.0500 MHz CW
29.4500 MHz CW
[01152007]
=====
OSCAR III
Catalog Number: 01293
Launch Date: March 09, 1965

Status: Non-Operational

Uplink: 145.9750 - 146.0250 MHz SSB/CW
Downlink: 144.3250 - 144.3750 MHz SSB/CW
[01012007]
=====
RS-15 RADIO SPORT RS-15
Catalog number: 23439
Launch Date: December 26, 1994

Status: Non-operational

Uplink: 145.858 to 145.898 MHz CW/USB
Downlink: 29.354 to 29.394 MHz CW/USB

Beacon 1: 29.352 MHz (intermittent)
Beacon 2: 29.398 MHz

SSB meeting frequency: 29.380 MHz (unofficial)
[06202004]
=====
RS-13 RADIO SPORT RS-13
Catalog number: 21089
Launch date: February 5, 1991

Status: Non-operational

Uplink: 21.260 to 21.300 MHz CW/USB
Downlink: 145.860 to 145.900 MHz CW/USB

Beacon: 145.860 MHz

Robot: 145.908 MHz
[05232004]
=====
RS-12 RADIO SPORT RS-12
Catalog number: 21089
Launch date: February 5, 1991

Status: Non-operational

Uplink: 21.210 to 21.250 MHz CW/USB
Downlink: 29.410 to 29.450 MHz CW/USB

Beacon: 29.408 MHz

Robot: 29.454 MHz
[05232004]
NNNN
/EX

ANS is released worldwide via the AMSAT ANS e-mail reflector and a
live
radiocast on the AMSAT-NA 20-meter net held each Sunday on 14.282 MHz.
Pre-net operations start at 18:00 UTC, with current ANS bulletins
trans-
mitted to the eastern U.S. at 19:00 UTC and to the western U.S. at
19:30
UTC.

Information on AMSAT-NA is available at the following URL:
http://www.amsat.org

Mailing address:
AMSAT-NA
850 Sligo Avenue, Suite 600
Silver Spring, Maryland 20910-4703

Voice: 301-589-6062
888-322-6728
FAX: 301-608-3410

Currently, AMSAT-NA supports the following (free) mailing lists:

* AMSAT News Service (ANS)
* General satellite discussion (AMSAT-BB)
* Orbit data (KEPS)
* Manned space missions (SAREX)
* District of Columbia area (AMSAT-DC)
* New England area (AMSAT-NE)
* AMSAT Educational Liaison mailing list (AMSAT-EDU)
* AMSAT K-12 Educational Liaison mailing list (AMSAT-K12)

A daily digest version is available for each list.

To subscribe, or for more list information, visit the following URL:
http://www.amsat.org/mailman/listinfo/ans

In addition to regular membership, AMSAT-NA offers membership in the
President's Club. Members of the President's Club, as sustaining
donors to AMSAT Project Funds, will be eligible to receive additional
benefits. Application forms are available from the AMSAT-NA Office.

This week's Weekly Satellite Report Editor is James French, W8ISS.

ANS is always dedicated to past ANS editor 'BJ' Arts, WT0N, and to the memory of longtime AMSAT supporters Werner Haas, DJ5KQ, Dennis Kitchen, G0FCL and John Branegan GM4IHJ.

Please send any amateur satellite news or reports to: ans-editor{at} amsat.org
NNNN
/EX

20. Recommendations for tracking software

Newsgroup: rec.radio.amateur.space
Date: 2013-02-03 19:17:16 UTC
From: Icom <yelkao@charter.net>
Message-ID: <nJyPs.74630$uU.70948@newsfe11.iad>
Source record: 97

What's out there? What is the cost? Are there any shareware/freeware
programs that will run on Vista?
B

21. Weekly Highlights of Solar and Geomagnetic Activity, 28 January - 03 February 2013

Newsgroup: rec.radio.amateur.space
Date: 2013-02-04 16:30:08 UTC
From: SWPC.Webmaster@noaa.gov
Message-ID: <20130204163001.F0F1C33C6F@panix2.panix.com>
Source record: 98
Cross-posted to: rec.radio.amateur.misc,rec.radio.amateur.dx,rec.radio.amateur.space,rec.radio.shortwave,rec.radio.info

```
:Product: Weekly Highlights and Forecasts
:Issued: 2013 Feb 04 0832 UTC
# Prepared by the US Dept. of Commerce, NOAA, Space Weather Prediction Center
# Product description and SWPC contact on the Web
# http://www.swpc.noaa.gov/weekly.html
#
# Weekly Highlights and Forecasts
#
Highlights of Solar and Geomagnetic Activity
28 January - 03 February 2013

Solar activity was at very low to low levels for the past week. The
largest flares of the period were a C8/Sn flare at 03/0610 UTC from
region 1667 (N22, L=197, class/area Dsi/160 on 03 February) and two
C2/Sf flares at 02/1958 UTC and 03/0224 UTC, also from region 1667.
An asymmetric, partial-halo Coronal Mass Ejection (CME) was observed
in SOHO/LASCO C2 coronagraph imagery around 31/0800 UTC with an
estimated plane-of-sky speed of 550 km/s. The event appeared to
orginate from a filament eruption on the southeast limb. No further
earth-directed CMEs were observed.

No proton events were observed at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit was at
normal to moderate levels. Moderate levels were observed on 29-31
January and again on 02-03 February.

Geomagnetic field activity was quiet to unsettled except for a short
period of active to minor storm levels at high latitudes on 02
February. Solar wind speeds began the period at about 430 km/s and
gradually decreased to around 300 km/s by 30/2300 UTC. By 01/2115
UTC, an increase in solar wind speed and temperature was observed
indicative of a negative polarity coronal hole high speed stream.
Total field (Bt) increased from 4 nT to 11 nT while the Bz component
of the interplanetary magnetic field varied between +/- 9 nT. The
geomagnetic field responded with quiet to unsettled conditions
through 02 February with periods of active to minor storming at high
latitudes. By 03 February, solar wind speeds were in decline as
effects from the coronal hole high speed stream began to wane. The
geomagnetic field was quiet on 03 February. Solar wind speeds ended
the period at approximately 400 km/s. At 03/1130 UTC, the lower
energy particle flux reported by the EPAM instrument aboard the ACE
spacecraft rose sharply and then leveled off while some of the lower
```

energy channels declined. This was likely indicative of the passage of the 31 January CME, however there was no clear shock signature associated with it.

Forecast of Solar and Geomagnetic Activity
04 February - 02 March 2013

Solar activity is expected to be at very low to low levels with a slight chance for M-class flares until region 1667 rotates around the west limb on 14 February. Very low to low levels are expected for the rest of the forecast period, barring significant active region emergence or development.

No proton events are expected at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit is expected to be at normal to moderate levels throughout the forecast period with possible high levels on 06-07, 11-12, and 24-25 Februrary due to coronal hole high speed stream effects.

The geomagnetic field is expected to be quiet to unsettled with a chance for active periods on 09-10, 22-23 February, and again 01-02 March due to recurrent coronal hole high speed stream activity. Otherwise, mostly quiet conditions are expected.

22. Radio Meteor Obs. Bull. January 2013 Quadrantids

Newsgroup: rec.radio.amateur.space
Date: 2013-02-05 18:54:54 UTC
From: Chris Steyaert <observations@rmob.org>
Message-ID: <mal2h89ampsff6ge7f029idg4lgg8kf2m4@4ax.com>
Source record: 99
Cross-posted to: rec.radio.amateur.space,sci.astro.amateur

Radio Meteor Observation Bulletin No. 234 of January 2013 (82 K) is available now as

http://www.rmob.org/rmobtext/rmob1301.txt

More information and the visual presentation of the hourly forward scatter counts can be found on

http://www.rmob.org

Chris

23. Re: Recommendations for tracking software

Newsgroup: rec.radio.amateur.space
Date: 2013-02-05 22:27:21 UTC
From: Alan WA4SCA <WA4SCA@YAHOO.COM>
Message-ID: <vd13h8hqms9kqnkdf37lc552snoum2k7dm@4ax.com>
Source record: 100

It would help a bit if you would tell us what your planned usage is.
For instance, just visualization, or control of radios and antennas?
If you are going to control equipment, take a look at SATPC32:

http://www.dk1tb.de/indexeng.htm

You can download a fully functional demo, with a minor nag. If you
like it, you can register it, and the money goes to funding the
various AMSAT organizations. It does require you to edit a few
configuration files, but the operation is solid.

--
Alan
WA4SCA

24. WSR-041 AMSAT Weekly Satellite Report

Newsgroup: rec.radio.amateur.space
Date: 2013-02-10 02:16:13 UTC
From: JoAnne Maenpaa <k9jkm@comcast.net>
Message-ID: <001c01ce0734$4ac659d0$e0530d70$@net>
Source record: 1
Cross-posted to: rec.radio.amateur.space,rec.radio.info

```
This report is organized into four (4) parts.
Part 1 (S1) - operational analog amateur satellites
Part 2 (S2) - operational digital amateur satellites
Part 3 (S3) - non - operational satellites
Part 4 (S4) - deborbited/returned satellites

SB SAT @ AMSAT W8ISS $WSR-041.S1
WSR 041 Part 1 02/11/2013

AMSAT NEWS SERVICE BULLETIN 041.S1
FROM AMSAT HQ SILVER SPRING, MD, February 11, 2013
TO ALL RADIO AMATEURS
BID: $WSR-041.S1

PW-Sat
Catalog Number: 38083
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: On Orbit

Uplink: 435.020 MHz FM
Downlink: 145.900 MHz DSB

Beacon:

Callsign:

URL:

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=132
[02112013]
=====
DO-64 Delfi-C3
Catalog number: 32789
Launch Date: April 28, 2008 0354z
Launch site: Satish Dhawan Space Centre, India

Status: Operational
Current Mode: Science Mode - Beacon ONLY

Telemetry: 145.870 MHz

Downlink: 145.880 to 145.920 MHz
Uplink: 435.530 to 435.570 MHz
```

Delfi-C3 web page: http://www.delfic3.nl/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=68
[02112013]
=====
VO-52 HAMSAT
Catalog number: 28650
Launch Date: May 05, 2005 0444z
Launch site: Satish Dhawan Space Centre, India

Status: Operational
Current Mode: U/v - Dutch Transponder

Frequencies:
Indian Transponder:
Uplink: 435.220 to 435.280 MHz LSB/CW
Downlink: 145.930 to 145.870 MHz USB/CW

Dutch Transponder:
Uplink: 435.225 to 435.275 MHz LSB/CW
Downlink: 145.925 to 145.875 MHz USB/CW

Indian Beacon: 145.9360 MHZ CW
Dutch Beacon: 145.860 MHz 12WPM with CW message

Mode and Antenna Polarization:
V: LHCP
U: RHCP

Official Webpage: http://www.amsatindia.org/hamsat.htm

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=30

To know what transponder is switched on please listen for the beacon
that is active. Each transponder has a different beacon.
[02112013]
=====
SO-50 SAUDISAT-1C
Catalog number: 27607
Launch date: December 20, 2002 1700z
Launch site: Baikonur, Kazakhstan

Status: Operational

Current Mode: V/u

Uplink: 145.850 MHz FM - 67.0 Hz PL tone
Downlink: 436.795 MHz

Mode and Antenna Polarization:
V: Linear
U: Linear

Official Webpage: http://saudisat.kacst.edu.sa/index.shtml
(not up and running currently)

To switch the transmitter on, you need to send a CTCSS tone of 74.4
Hz. The order of operation is thus: (allow for Doppler as necessary):
1) Transmit on 145.850 MHz with a tone of 74.4 Hz to arm the 10 minute
timer on board the spacecraft.
2) Now transmit on 145.850 MHz (FM Voice) using 67.0 Hz to PT the re-
peater on and off within the 10 Minute window.
3) Sending the 74.4 tone again within the 10 minute window will reset
the 10 minute timer.
[02112013]
=====
FO-29 JAS-2
Catalog number: 24278
Launch Date: August 17, 1996

Status: Operational
Current Mode: V/u (Mode JA)

Voice/CW (Mode JA)
Uplink: 145.90 to 146.00 MHz CW/LSB
Downlink: 435.80 to 435.90 MHz CW/USB
Beacon: 435.795 MHz

Digital Mode JD
Uplinks: 145.850 MHz FM
145.870 MHz FM
145.910 MHz FM
Downlink: 435.910 MHz 1200-baud BPSK or 9600-baud FSK
Callsign: 8J1JCS
Digitalker: 435.910 MHz

Mode and Antenna Polarization:
V: RHCP
U: RHCP

For current operational schedule for FO-29:
http://www.ne.jp/asahi/m-arai/gkz/satinfo/fo29e.htm

JARL English webpage:
http://www.jarl.or.jp/English/5_Fuji/ejasmenu.htm

AMSAT-NA Webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID
=5&retURL=/satellites/status.php

Mineo Wakita, JE9PEL, has created a simple decoder program for FO29's
CW telemetry downlink: http://www.ne.jp/asahi/hamradio/je9pel/
fo29cwts.htm
[02112013]
=====
AO-7 AMSAT OSCAR 7
Catalog number: 07530

Launch Date: November 15, 1974
Launch site: Vandenberg AFB, California, USA

Status: Operational

Current Mode: Alternating between Mode A and B every 24 hours

Uplink: 145.850 to 145.950 MHz CW/USB Mode A
432.125 to 432.175 MHz CW/LSB Mode B
Downlink: 29.400 to 29.500 MHz CW/USB Mode A (1W PEP)
145.975 to 145.925 MHz CW/USB Mode B (8W PEP)
145.975 to 145.925 MHz CW/USB Mode C (2W PEP)
Beacons: 29.502 MHz CW
145.972 MHz CW
435.100 MHz CW
2304.100 MHz CW

Official Webpage:
http://www.amsat.org/amsat-new/satellites/sat_summary/ao7.php
[02112013]
=====
INTERNATIONAL SPACE STATION (ISS) - ARISS
Catalog number: 25544
Launch date: November 20, 1998 0640z (ZARYA module)
Launch sites: Baikonur, Kazakhstan
Kourou, French Guiana
Uchinoura Space Center, Japan
Kennedy Space Center, Titusville, Florida, USA

Status: Operational

Current Active Modes: FM Repeater - OFF
Voice - V/v
BBS - V/v
2m APRS - V/v
2m Digi - V/v
70cm APRS - ?
70cm Digi - ?
SSTV - V/v

Expedition 34 Crew (November 2012 - March 2013):
Commander: Kevin Ford KF5GPP
Flight Engineer: Oleg Novitskiy
Flight Engineer: Evgeny Tarelkin
Flight Engineer: Roman Romanenko
Flight Engineer: Chris Hadfield KC5RNJ/VA3OOG
Flight Engineer: Tom Marshburn KE5HOC

Available Modes and Frequencies:
Digital/APRS:
Worldwide 2m packet uplink: 145.825 MHz FM 1k2
Worldwide 2m packet downlink: 145.825 Mhz FM 1k2
Worldwide 70cm packet uplink: 437.550 Mhz FM 1k2

Worldwide 70cm packet downlink: 437.550 Mhz FM 1k2

Voice:
Region 1 voice uplink: 145.200 MHz FM
Region 2/3 voice uplink: 144.490 MHz FM
Worldwide downlink: 145.800 MHz FM

Crossband Repeater:
Repeater Uplinks: 1269.650 MHz FM
437.800 MHz FM
145.990 MHz FM - 67.0 PL (Kenwood)
Repeater Downlink: 145.800 MHz FM
437.800 MHz FM (Kenwood)

SSTV Robot 36:
Downlink: 145.800 MHz FM

Mode and Antenna Polarization:
V: Linear
U: Linear

Callsigns:
Belgian: OR4ISS
German: DP0ISS
Russian: RS0ISS
RZ3DZR
United States: NA1SS
2m Packet Mailbox: RS0ISS-11
2m Digipeater alias: ARISS
70cm Packet Mailbox: RS0ISS-1
70cm Digipeater callsign: RS0ISS
70cm Digipeater alias: ARISS

Official ARISS Webpage: http://www.rac.ca/ariss
ISS Fan Club Webpage: http://www.issfanclub.com
APRS tracking page: http://www.ariss.net/

ISS Daily Crew Schedule: http://spaceflight.nasa.gov/station/timelines
Remember that the crew operates on UTC time. Also, all of the time
line is NOT translated from Russian and posted.
[02112013]
NNNN
/EX

SB SAT @ AMSAT W8ISS $WSR-041.S2
WSR 041 Part 2 02/11/2013

AMSAT NEWS SERVICE BULLETIN 041.S2
FROM AMSAT HQ SILVER SPRING, MD, February 11, 2013
TO ALL RADIO AMATEURS
BID: $WSR-041.S2

Fitsat-1
Catalog number: 38853
Launch Date: October 04, 2012
Launch site: Kibo Japanese Experiment Module, International Space
Station

Status: Operational

Uplink:
Downlink(s): 437.445MHz 1k2 AFSK
5840.00 MHz 115k2 data
LED CW (200w pulses)

Beacon(s): 437.250 MHz CW

Callsign: NIWAKA

URL: http://carpcomm.com/satellite/fitsat1
[10292012]
=====
TechEdSat
Catalog number: 38854
Launch date: October 04, 2012
Launch site: Kibo Japanese Experiment Module, International Space
Station

Uplink(s):
Downlink(s): 437.465 1k2 AFSK

Beacon(s):

Callsign:

URL:http://www.techedsat.com/
[10152012]
=====
We Wish
Catalog number: 38856
Launch date: October 04,2012
Launch Site: Kibo Japanese Experiment Module, International Space
Station

Uplink(s):
Downlink(s): 437.505MHz 1k2 AFSK
437.505MHz SSTV

Beacon(s): 437.505MHz CW

Callsign: JQ1ZIJ

URL:
[10152012]
=====
F-1
Catalog number: 38855

Launch Date: October 04, 2012
Launch Site: Kibo Japanese Experiment Module, International Space Station

Uplink(s):
Downlink(s): 145.980MHz 1k2 AFSK
437.485MHz FM moduled CW

Baecon(s):

Callsign: XV1VN

URL: http://fspace.edu.vn/
[10152012]
=====
Aeneas
Catalog Number: 38760
Launch Date: September 13, 2012 2139z
Launch Site: Wallops Island, Virginia, USA

Status: On Orbit

Uplink: WiFi 2425MHz
Downlink:
WiFi: 2425MHz
Spread Spectrum: Somewhere in the 70cm band

Beacon: 437.600MHz 1k2 ax25 every 10 seconds

Callsign:

URL:
[10012012]
=====
CSSWE (Colorado Student Space Weather Experiment)
Catalog Number: 38761
Launch Date: September 12, 2012 2139z
Launch Site: Wallops Island, Virginia, USA

Status: On Orbit

Uplink:
Downlink: 437.345MHz 9k6 with ax.25

Beacon:

Callsign:

URL:
[10012012]
=====
CP5 (Polysat)
Catalog Number: 38763
Launch Date: September 12, 2012 2139z
Launch Site: Wallops Island, Virginia, USA

Status: On Orbit

Uplink:
Downlink: 437.405MHz AFSK on LSB ax.25 over NRZI at 1k2 baud,
every 2
minutes, begins 3.5 hours after first turn-on

Beacon:

Callsign:

URL:
[10012012]
=====
CXBN (Cosmic X-Ray Background Nanosatellite)
Catalog Number: 38762
Launch Date: September 12, 2012 2139z
Launch Site: Wallops Island, Virginia, USA

Status: On Orbit

Uplink:
Downlink: 437.525MHz GFSK ax.25

Beacon:

Callsign:

URL:
[10012012]
=====
Proiteres
Catalog Number: 38756
Launch Date: September 09, 2012 2139z
Launch Site: Satish Dhawan Space Centre, India

Status: On Orbit

Uplink:
Downlink: 437.485MHz FM/AFSK

Beacon:

Callsign: JL3YZK

URL:
[10012012]
=====
RS-40 MiR (Yubileiny-2)
Catalog Number: 38735
Launch Date: July 28, 2012
Launch Site: Plesetsk Missile and Space Complex, Russia

Status: On Orbit

Uplink:
Downlink(s): 435.265 MHz
435.365 MHz

Beacon:

Callsign:

URL:
[08272012]
=====
HORYU-II
Catalog number: 38340
Launch Date: May 17, 2012 1639z

Status: On Orbit

Uplink: 145.??? MHz
Downlink: 437.375 MHz CW/AX25/FSK

Beacon: 437.375 MHz CW

Callsign: JG6YBW

URL:

IARU Coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=216
[10012012]
=====
XaTcobeo
Catalog Number: 38082
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: Operational

Uplink:
Downlink: 437.365 MHz FFSK with AX.25

Beacon:

Callsign:

URL:

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=135
[100162012]
=====
UniCubeSat
Catalog Number: 38085(?)
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: Operational

Uplink:
Downlink: 437.305 MHz 9k6 bps GMSK

Beacon:

Callsign:

URL:
http://www.gaussteam.com/index.php?option=com_content&view=article&id=
96:unicu
besat&catid=36:unicubesat&Itemid=183

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=133
[10012012]
=====
Robusta
Catalog Number: 38083(?)
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: On Orbit

Uplink:
Downlink: 437.325 MHz 1k2 FM telemetry (data every 3 min, 20 sec.
burst)

Beacon:

Callsign:

URL:

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=122
[10012012]
=====
MO-72 MaSat-1
Catalog Number: 38081
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: Operational

Uplink:
Downlink: 437.345 MHz GFSK 625/1250 bps
437.345 MHz CW

Beacon:

Callsign:

URL:

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=126

[10012012]
=====
Goliat
Catalog Number: 38084(?)
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: Operational

Uplink:
Downlink: 437.485 MHz 1k2 AFSK

Beacon:

Callsign:

URL:

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=98
[10012012]
=====
E-St@r
Catalog Number: 38079
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: On Orbit

Uplink:
Downlink: 437.445 MHz 1k2 bps AFSK

Beacon:

Callsign:

URL:

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=130
[10012012]
=====
ALMASat-1
Catalog Number: 38078
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: On Orbit

Uplink:
Downlink: 437.465 MHz 1k2 bps FSK
2407.850 MHz

Beacon:

Callsign:

URL:

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=39
[10012012]
=====
RS-39 Chibis-M
Catalog Number: 38051
Launch Date: October 30, 2011 10:11:00 UTC
Launch site: Tyuratam (Baikonur Cosmodrome), Kazakhstan

Status: Operational

Uplink:
Downlink:

Beacon: 435.315 MHz CW
435.215 MHz CW

Callsign:

URL:

IARU coordination status page:
[07302012]
=====
JUGNU
Catalog Number: 37839
Launch Date: October 12, 2011 05:30:00 UTC
Launch site: Satish Dhawan Space Centre, India

Status: On Orbit

Uplink: 145.??? MHz 1k2 (mode?)
Downlink: 437.505 MHz 9k6 (mode?)

Beacon: 437.275 MHz 15 wpm (?) CW

Callsign:

URL: http://www.iitk.ac.in/me/jugnu/index.htm

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=160
[07092012]
=====
SRMSAT
Catalog Number: 37841
Launch Date: October 12, 2011 05:30:00 UTC
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Uplink: 145.900 MHz 1k AX.25 (speed?)
Downlink: 437.500 MHz 2k4 AX.25

Beacon: 437.425 MHz 12 wpm CW

Callsign:

URL: http://srmsat.in/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=181
[01282013]
=====
HRBE (E1P Explorer 1 [Prime] CubeSat (E1P-U2))
Catalog Number: 37855
Launch Date: October 28, 2011
Launch site: Vandenberg Air Force Base, California, USA

Status: On Orbit

Uplink: 437.305 MHz (???)
Downlink: 437.505 MHz AX.25 (SSB?)

Beacon:

Callsign:

URL: http://ssel.montana.edu/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=116
[01122012]
=====
M-Cubed
Catalog Number: 37855
Launch Date: October 28, 2011
Launch site: Vandenberg Air Force Base, California, USA

Status: On Orbit

Uplink:
Downlink: 437.485 MHz AX.25

Beacon:

Callsign:

URL: http://umcubed.org/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=215
[01122012]
=====
RAX-2
Catalog Number: 37853
Launch Date: October 28, 2011

Launch site: Vandenberg Air Force Base, California, USA

Status: Operational

Uplink:
Downlink: 437.345MHz 9k6 GMSK

Beacon:

Callsign:

URL: http://rax.engin.umich.edu//

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=221
[03232012]
=====
AO-71 AubieSat-1
Catalog Number: 37854
Launch Date: October 28, 2011
Launch site: Vandenberg Air Force Base, California, USA

Status: On Orbit

Uplink:
Downlink: 437.475 MHz 1k2 AX.25

Beacon: 437.475 MHz CW

Callsign: KI4NQO

URL: http://www.space.auburn.edu/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=148
[12262011]
=====
O/OREOS
Catalog Number: 37224
Launch Date: November 20, 2010
Launch site: Kodiak Launch Complex, Alaska, USA

Status: On Orbit

Uplink:
Downlink: 437.035 MHZ AX.25

Beacon:

Callsign:

URL: http://www.ooreos.org/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=146
[02092011]

=====
Rax-1 Radio Aurora Explorer
Catalog Number: 37223
Launch Date: November 20, 2010
Launch site: Kodiak Launch Complex, Alaska, USA

Status: On Orbit

Uplink:
Downlink: 437.505 MHz 9k6 GMSK

Beacon:

Callsign: RAX-1

URL: http://rax.engin.umich.edu/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=165
[02092011]
=====
FO-69 Fastrac-1 Sara Lily
Catalog Number: 37227
Launch Date: November 20, 2010
Launch site: Kodiak Launch Complex, Alaska, USA

Status: Operational

Uplink 1: 145.980 MHz 1k2 baud
Uplink 2: 145.825 MHz 1k2 baud
Downlink: 437.345 MHz 1k2 and 9k6 baud

Beacon: 437.435 MHz 1k2 AX.25

Callsign: Fast1

URL: http://fastrac.ae.utexas.edu/index.php

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=83
[07052011]
=====
FO-70 Fastrac-2 Emma
Catalog Number: 37380
Launch Date: November 20, 2010
Launch site: Kodiak Launch Complex, Alaska, USA

Status: Operational

Uplink 1: 435.025 MHz 1k2 baud
Uplink 2: 437.435 MHz 9k6 baud
Downlink: 145.825 MHz 1k2 and 9k6 baud

Beacon: 145.825 MHz 1k2 AX.25

Callsign: Fast2

URL: http://fastrac.ae.utexas.edu/index.php

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=84
[12162011]
=====
StudSat
Catalog Number: 36796
Launch Date: July 12, 2010 0352z
Launch site: Satish Dhawan Space Centre, India

Status: On Orbit

Uplink: 437.505MHz, 9600bps FSK
Downlink: 437.505MHz, 9600bps FSK
Beacon : 437.505MHz, 20bps ASK

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=164
[02092011]
=====
TIsat-1
Catalog Number: 36799
Launch Date: July 12, 2010 0352z
Launch site: Satish Dhawan Space Centre, India

Status: On orbit

Callsign: HB9DE

Uplink: 145.980MHz FM, AFSK
Downlink: 437.305MHz FM, AFSK
Beacon: 437.305MHz CW

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=118
[02092011]
=====
SwissCube
Catalog Number: 35932
Launch Date: September 23, 2009 0621z
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Callsign: HB9EG

Beacon(100mw): 437.5050MHz CW
Beacon(1w): 437.5050MHz FSK 1k2bps

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=109
[02092011]

=====
UWE-2
Catalog Number: 35934
Launch Date: September 23, 2009 0621z
Launch site: Satish Dhawan Space Centre, India

Status: In Orbit

Beacon(500mw): 437.3850 MHz AFSK 1k2bps
437.3850 MHz FSK 9k6bps

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=110
[02092011]
=====
ITUpsAT1
Catalog Number: 35935
Launch Date: September 23, 2009 0621z
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Beacon(100mw): 437.325MHz CW
Beacon(1w): 437.325MHz 19k2bps

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=113
[02092011]
=====
BEESAT
Catalog Number: 35933
Launch Date: September 23, 2009 0621z
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Callsign: DP0BEE

Beacon(100mw): 436.000MHz CW
Beacon(500mw): 436.000MHz GMSK 4k8bps
Beacon(500mw): 436.000MHz GMSK 9k6bp
[02092011]
=====
SOHLA-1 (ASTRO TECH.)
Catalog Number: 33496
Launch Date: January 23, 2009 0354z
Launch site: Tanegashima Space Center, Japan

Status: Operational

Proposed Frequencies and Modes:
Downlink: 437.505 MHz AFSK/CW
Beacon: 437.505 MHz AFSK/CW

Callsign:

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=101
[02092011]
=====
KAGAYAKI (Solan Co.)
Catalog Number: 33495
Launch Date: January 23, 2009 0354z
Launch site: Tanegashima Space Center, Japan

Status: In Orbit

Downlink: 437.375 MHZ FSK9k6/CW
Beacon: 437.375 MHz FSK9k6/CW

IARU coordination status page:

AMSAT-NA webpage:

[02092011]
=====
STARS (Kagawa Univ.) (Twin Satellites)
Catalog Number: 33498
Launch Date: January 23, 2009 0354z
Launch site: Tanegashima Space Center, Japan

Status: Operational ?

Downlinks: 437.485 MHz FM/CW
437.465 MHz FM/CW
Beacons: 437.305 MHz FM/CW
437.275 MHz FM/CW

Callsigns: JR5YBN
JR5YBO

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=99

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=121&retURL
=/satellites/status.php
[02092011]
=====
KKS-1 (Tokyo MCIT)
Catalog Number: 33499
Launch Date: January 23, 2009 0354z
Launch site: Tanegashima Space Center, Japan

Status: Operational

Downlink: 437.455 MHz AFSK/CW
Beacon: 437.385 MHz AFSK/CW

Callsign: JQ1YYY

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=107

AMSAT-NA webapge:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=120&retURL
=/satellites/status.php
[20092011]
=====
PRISM (Tokyo Univ.)
Catalog Number: 33493
Launch Date: January 23, 2009 0354z
Launch site: Tanegashima Space Center, Japan

Status: Operational

Uplink: 145.xxx MHz AFSK 1k2
Downlink: 437.425 MHz AFSK 1k2
Beacon: 437.250 MHz CW

Callsign: JQ1YCX

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=97

Read terms and conditions of operations at the PRISM web page to find
out how
to properly operate on the satellite and to get the uplink frequency.
It
has
been asked that the uplink frequency not be given out untik you have
read and
understood the terms of usage.

URL:
http://www.space.t.u-tokyo.ac.jp/prism/en/HAMservice.html
[10282012]
=====
RS-30 Radio Sputnik 30 (Yubileiny)
Catalog Number: 32953
Launch Date: May 23, 2008 1520z
Launch site: Plesetsk Missile and Space Complex, Russia

Status: Operational

Curent Modes: Telemetry
Audio
Images

Downlinks: 435.315 MHz
435.215 MHz

AMSAT-NA website:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=115&ret
URL=/satellites/status.php

Official website:
http://www.npopm.com/?cid=leoca&caid=43
[02092011]
=====
CanX-2
Catalog number: 32790
Launch Date: April 28, 2008 0354z
Launch site: Satish Dhawan Space Centre, India

Status: Operational in range of ground station only

Downlink: 437.478 MHz GFSK

For the latest project status update please visit the Can X-2 web
page: http://www.utias-sfl.net/nanosatellites/CanX2/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=46
[02092011]
=====
AAUSAT-II
Catalog number: 32788
Launch Date: April 28, 2008 0354z
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Downlink: 437.425 MHz 1k2 baud packet

For the latest project status update please visit the AAUSAT-II web
page:
http://www.aausatii.aau.dk/homepage/index.php?language=en&page=home

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=60
[02092011]
=====
CO-65 CUTE-1.7+APD II
Catalog number: 32785
Launch Date: April 28, 2008 0354z
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Downlink: 437.475 MHz 9k6 Packet
Uplink: 1267.600 Mhz

Telemetry Beacon:
Downlink: 437.2750 MHz CW

For the latest project status update please visit the Cute-1.7+APD II
web page: http://lss.mes.titech.ac.jp/ssp/cute1.7/index_e.html

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=78

Command Station blog website:
http://lss.mes.titech.ac.jp/ssp/cute1.7/blog/

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=112&retURL
=/satellites/status.php
[03232012]
=====
Compass-1
Catalog number: 32787
Launch Date: April 28, 2008 0354z
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Current Mode: dependant on last received command

Uplink: 145.980 MHz FM
Downlink: 437.275 Mhz CW
437.405 MHz Packet

For the latest project status update please visit the Compass 1 web
page: http://www.raumfahrt.fh-aachen.de/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=52

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=114&retURL
=/satellites/status.php
[06162011]
=====
CO-66 Seeds II
Catalog number: 32791
Launch Date: April 28, 2008 0354z
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Downlink: 437.485 MHz

Callsign: JQ1YGU

For the latest project status update please visit the Seeds 2 web
page: http://cubesat.aero.cst.nihon-u.ac.jp/english/seeds_2_e.html

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=36

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=113&retURL
=/satellites/status.php
[073092011]
=====
CAPE-1

Catalog Number: 31130
Launch Date: April 17,2007 0702z
Launch site: Baikonur, Kazakhstan

Status: Intermittent

Current Mode: /u

TLM Downlink: 435.245 MHz 9600 bs FSK AX.25
CW Beacon: 435.245 MHz CW

Callsign: K5USL

TLM and CW interchange every 30 seconds.

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=94&retURL=
/satellites/status.php

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=72
[02092011]
=====
CP3
Catalog Number: 31129
Launch Date: April 17,2007 0702z
Launch site: Baikonur, Kazakhstan

Status: Operational

Current Mode: /u

Downlink: 436.845 MHz 1200 bps AFSK AX.25

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=74
[02092011]
=====
CO-58 CubeSat XI-V
Catalog number: 28895
Launch Date: October 27, 2005 0652z
Launch site: Plesetsk Missile and Space Complex, Russia

Status: Operational - CW Beacon only

Current Mode: /u

Telemetry Downlink: 437.4250 MHz AFSK 1200bps using AFK protocol
Beacon: 437.2750 MHz CW

Callsign: JQ1YGW

Official Webpage: http://www.space.t.u-tokyo.ac.jp/cubesat/mission/V/

Pictures received by Mineo Wakita - JE9PEL:
http://www.ne.jp/asahi/hamradio/je9pel/xivpicte.htm

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=37
[02092011]
=====
CO-57 CubeSat XI-IV
Catalog number: 27848
Launch date: June 30, 2003 1415z
Launch site: Plesetsk Missile and Space Complex, Russia

Status: ?????

Current Mode: /u

Beacon: 436.8475 MHz CW
Telemetry : 437.4900 MHz AFSK 1200 BPS

Callsign: JQ1YGW

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=96&retURL
=/satellites/status.php

Official Webpage: http://www.space.t.u-tokyo.ac.jp/cubesat/mission/V/
[02092011]
=====
QuakeSat
Catalog Number: 27845
Launch Date: June 30, 2003 1415z
Launch site: Plesetsk Missile and Space Complex, Russia

Status: Telemetry only

Current Mode: 9600 baud data packet

Mode U packet
Downlink: 436.675 MHz 9k6 BPS

Quakesat webpage:
http://www.quakefinder.com/services/quakesat-ssite/
[02252011]
=====
CO-55 Cute-1.7+APD II
Catalog Number: 27844
Launch date: June 30, 2003 1415z
Launch site: Plesetsk Missile and Space Complex, Russia

Status: Operational

Current Mode: CW downlink worldwide
AX25 Packet with uplink command over Japan only

Mode U Telemetry
Downlink: 437.4000 MHz AFSK 1200 BPS

Mode U TLM Beacon
Downlink: 436.8375 MHz CW

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=69&retURL
=/satellites/status.php

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=78
[02092011]
=====
NO-44 PCSAT
Catalog number: 26931
Launch Date: September 30, 2001 0240z
Launch site: Kodiak Launch Complex, Alaska, USA

Status: Operational

Current Mode: V/v

General Usage Uplink/Downlink: 145.827 MHz 1200 Baud
Special Usage Downlink: 144.390 Mhz 1200 Baud

PCSAT APRS page: http://pcsat.aprs.org

aprstlm Telemetry Decoder program:
http://www.xciv.org/~iain/aprstlm/v1.2/
[10292012]
=====
RS-22 RADIO SPORT 22 (MOZHAYETS 4)
Catalog number: 27939
Launch Date: September 27, 2003 0612z
Launch site: Plesetsk Missile and Space Complex, Russia

Status: Operational - 70cm cw only

Current Mode: /u

CW Beacon - 435.352 MHz
145.818 MHz

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=76&retURL
=/satellites/status.php
[02092011]
=====
LO-19 LUSAT
Catalog number: 20442
Launch date: January 22, 1990
Launch site: Kourou, French Guiana

Status: CW Beacon only

Uplinks: 145.840 MHz 1200-baud Manchester FSK
145.860 MHz 1200-baud Manchester FSK
145.880 MHz 1200-baud Manchester FSK
145.900 MHz 1200-baud Manchester FSK

CW downlink: 437.125 MHz

Digital downlink: 437.150 MHz SSB (RC-BPSK 1200-baud PSK)

Broadcast Callsign: LUSAT-11
BBS: LUSAT-12

General information and telemetry samples can be found at:
www.telecable.es/personales/ea1bcu
[02092011]
=====
UO-11 OSCAR-11
Catalog number: 14781
Launch Date: March 1, 1984
Launch site: Vandenburg AFB, California, USA

Status: Operational ?

Current Mode: /v

Telemetry Downlink: 145.825 MHz FM 1200 AFSK
UHFBeacon: 435.025 MHz
Mode-S Beacon: 2401.500 MHz

Mode and Antenna Polarization:
V: RHCP
S: LHCP

Webpage: http://www.users.zetnet.co.uk/clivew/
MPEG3 files: http://www.ne.jp/asahi/hamradio/je9pel/uo11tlme.htm
[07052011]
=====
INTERNATIONAL SPACE STATION (ISS) - ARISS
Catalog number: 25544
Launch date: November 20, 1998 0640z (ZARYA module)
Launch sites: Baikonur, Kazakhstan
Kourou, French Guiana
Uchinoura Space Center, Japan
Kennedy Space Center, Titusville, Florida, USA

Status: Operational

Current Active Modes: FM Repeater - OFF
Voice - V/v
BBS - V/v
2m APRS - V/v
2m Digi - V/v
70cm APRS - ?
70cm Digi - ?
SSTV - V/v

Expedition 34 Crew (November 2012 - March 2013):
Commander: Kevin Ford KF5GPP
Flight Engineer: Oleg Novitskiy
Flight Engineer: Evgeny Tarelkin

Flight Engineer: Roman Romanenko
Flight Engineer: Chris Hadfield KC5RNJ/VA3OOG
Flight Engineer: Tom Marshburn KE5HOC

Available Modes and Frequencies:
Digital/APRS:
Worldwide 2m packet uplink: 145.825 MHz FM 1k2
Worldwide 2m packet downlink: 145.825 Mhz FM 1k2
Worldwide 70cm packet uplink: 437.550 Mhz FM 1k2
Worldwide 70cm packet downlink: 437.550 Mhz FM 1k2

Voice:
Region 1 voice uplink: 145.200 MHz FM
Region 2/3 voice uplink: 144.490 MHz FM
Worldwide downlink: 145.800 MHz FM

Crossband Repeater:
Repeater Uplinks: 1269.650 MHz FM
437.800 MHz FM
145.990 MHz FM - 67.0 PL (Kenwood)
Repeater Downlink: 145.800 MHz FM
437.800 MHz FM (Kenwood)

SSTV Robot 36:
Downlink: 145.800 MHz FM

Mode and Antenna Polarization:
V: Linear
U: Linear

Callsigns:
Belgian: OR4ISS
German: DP0ISS
Russian: RS0ISS
RZ3DZR
United States: NA1SS
2m Packet Mailbox: RS0ISS-11
2m Digipeater alias: ARISS
70cm Packet Mailbox: RS0ISS-1
70cm Digipeater callsign: RS0ISS
70cm Digipeater alias: ARISS

Official ARISS Webpage: http://www.rac.ca/ariss
ISS Fan Club Webpage: http://www.issfanclub.com
APRS tracking page: http://www.ariss.net/

ISS Daily Crew Schedule: http://spaceflight.nasa.gov/station/timelines
Remember that the crew operates on UTC time. Also, all of the time
line is NOT translated from Russian and posted.
[12242012]
NNNN
/EX

SB SAT @ AMSAT W8ISS $WSR-041.S3
WSR 041 Part 3 02/11/2013

AMSAT NEWS SERVICE BULLETIN 041.S3
FROM AMSAT HQ SILVER SPRING, MD, February 11, 2013
TO ALL RADIO AMATEURS
BID: $WSR-041.S3

THE FOLLOWING ARE IN ORBIT BUT ARE NON-OPERATIONAL AT THIS TIME:

NANOSAIL-D
Catalog Number: 37361
Ejection Date: January 17, 2011

Status: Non - Operational

Downlink: 437.270 MHz AX.25

URL: http://nanosaild.engr.scu.edu/dashboard.htm

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=115
[07302012]
=====
HO-68 HOPE-1 (CAS-1) (XW-1)
Catalog Number: 36122
Launch Date: December 15, 2009 0231z
Launch site: Taiyuan Space Center, PRC

Status: Telemetry only

Callsign:
Broadcast: BJ1SA-11
BBS: BJ1SA-12

Uplinks: 145.8250 MHz FM, PL 67.0 Hz.
145.9250 - 145.9750 MHz SSB/CW
145.8250 MHz AFSK 1200 BPS
Downlinks: 435.6750 MHz FM
435.7650 - 435.7150 MHz SSB/CW
435.6750 MHz AFSK 1200 BPS

Beacon: 435.7900 MHz CW

Mode and Antenna Polarization:
V: LHCP 2.0dBi max
U: RHCP 3.0dBi max

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=108

For more information about XW-1 (CAS-1):
http://
[04302012]
=====
SO-67 SumbandilaSat

Catalog Number: 35870
Launch Date: September 17, 2009 1555z
Launch site: Baikonur, Kazakhstan

Status: Non - Operational

Callsign: ZS0SUM

Uplink: 145.875MHz FM tone 233.6 Hz
Downlink: 435.345MHz FM

Mode and Antenna Polarization:
V: Linear
U: Linear

For more information about SO-67:
http://www.amsatsa.org.za/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=88
[01272012]
=====
CP4
Catalog Number: 31132
Launch Date: April 17, 2007

Status: Non-Operational

Current Mode: /u

TLM Downlink: 437.325 MHz 1200 bps FSK AX.25
CW Beacon: 437.325 MHz CW

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=79
[09062010]
=====
LIBERTAD-1
Catalog Number: 31128
Launch Date: April 17, 2007

Status: Non-Operational

Current Mode: V/u APRS Packet ax25

Callsign: 5K3L

Uplink: 145.825 MHz 1200 AFSK ax25 APRS
Downlink: 437.399 MHz 1200 AFSK ax25 APRS

Telemetry Beacon: 437.4050 MHz 1200 AFSK ax25

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=76
[09062010]

=====
PO-63 PEHUENSAT-1
Catalog Number: 29712
Launch Date: January 10, 2007

Status: Non-Operational

Current Mode: V/v

Uplink/Downlink: 145.825 Mhz FM
Voice Recorder: 145.825 Mhz FM

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=51
[09062010]
=====
NCUBE-2
Catalog number: 28897
Launch Date: October 27, 2005

Status: Still attached to XO-53 (SSETI)?

Proposed Callsign: TBA
Proposed Transmit Frequency: 437.305
2407.250

Official Website: http://www.ncube.no

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=24
[09062010]
=====
XO-53 SSETI
Catalog number: 28894
Launch Date: October 27, 2005

Status: Non-operational

Voice Uplink: 437.250 MHz FM 67Hz CTCSS
Voice Downlink: 2401.835 MHz FM
Packet Up/Downlink: 437.250 MHz 9k6 packet
Packet Downlink 2401.835 MHz 38k4 packet

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=54
[09062010]
=====
UWE-1
Catalog Number: 28892
Launch Date: October 27, 2005

Status: Non-Operational

Mode U Telemetry
Downlink: 437.5050 MHz 9600 AFSK

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=53
[09062010]
=====
AO-51 ECHO
Catalog number: 28375
Launch date: June 29, 2004 0745z
Launch site: Baikonur, Kazakhstan

Status: Non - Operational

Current Mode(s):
Voice repeater: V/u
Uplink: 145.880 MHz FM
Downlink: 435.150 MHz FM

Telemetry: Recovery efforts
Downlink: 435.150MHz 9k6

Analog voice downlink: 435.300 MHz FM
435.150 MHz FM
2401.200 Mhz FM
Analog voice uplink: 145.860 MHZ FM
145.880 MHz USB
145.880 MHz FM
145.920 MHz FM
145.920 MHz FM - 67 Hz PL tone burst
1268.705 MHz FM
Digital Downlinks: 435.150 MHz FM 38k4 PBP, 1 watt output
435.150 MHz FM 9k6 Pacsat Broadcast
Protocol
2401.200 MHz FM 38k4 bps, AX.25
Digital Uplink: 145.860 MHz FM 9k6 Pacsat Broadcast
Protocol
1268.703 mhz FM 9k6 Pacsat Broadcast
Protocol
Beacon: 435.150 MHz

Mode and Antenna Polarization:
T: Linear
V: Linear
U: TX A (usually digital)LHCP
TX B (usually analog) RHCP
L: Linear
S: Linear

Broadcast: PECHO-11
BBS: PECHO-12

Official Webpage: http://www.amsat.org/amsat-new/echo/CTNews.php

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=19
[12062011]
=====
CANX-1
Catalog Number: 27847
Launch Date: June 30, 2003

Status: Non-Operational

Downlink: 437.8800 MHz AFSK 1k2bps
[06052009]
=====
DTUSAT
Catalog Number: 27842
Launch Date: June 30, 2003

Status: Non-Operational

Current Mode: 2k4 AFSK Packet last reported

Downlink: 437.475MHz

Officail webpage: http://dtusat1.dtusat.dtu.dk/

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=101&retURL
=satellites/all_oscars.php
[02212009]
=====
AO-49 AATiS OSCAR-49 (SAFIR-M)
Catalog number: 27605
Launch Date: December 20, 2002

Status: Non-operational.

Uplink: 435.275 MHz 1200-baud AFSK
Downlink: 145.825 MHz 9600-baud FSK
(optional voice message)

Broadcast callsign: DP0AIS

Official webpage: http://amend.gmxhome.de
[01222007]
=====
MO-46 TIUNGSAT-1
Catalog number: 26548
Launch date: September 26, 2000

Status: Telemetry only

Uplinks: 145.850 MHz
145.925 MHz 9600-baud FSK
Downlink: 437.325 MHz

Broadcast callsign: MYSAT3-11
BBS: MYSAT3-12

TiungSat-1 is Malaysia's first micro-satellite and in addition to
commercial land and weather imaging payloads offers FM and FSK
Amateur Radio communication.

TiungSat-1, named after the mynah bird of Malaysia, was developed as
a collaborative effort between the Malaysian government and Surrey
Satellite Technology Ltd.
[03302009]
=====
NO-45 SAPPHIRE
Catalog number: 26932
Launch Date: September 30, 2001

Status: Non-Operational

Downlink: 437.095 MHz 1200 baud AX-25 AFSK
Uplink: 145.945 MHz UI Digipeater
Digi Callsign: KE6QMD

Everyone is welcome to use the digipeating/APRS features of Sapphire,
as per the user service agreement located at the following URL:
http://web.usna.navy.mil/~bruninga/pcsat/contract.txt
[03132005]
=====
SO-42 SAUDISAT-1B
Catalog number: 26549
Launch date: September 26, 2000

Status: Non-Operational

Downlink: 437.075 MHz

Broadcast Callsign: SASAT2-11
BBS: SASAT2-12

Further information is available at:
http://www.amsat.org/amsat/sats/n7hpr/so42.html
[01222007]
=====
SO-41 SAUDISAT-1A
Catalog number: 26545
Launch Date: September 26, 2000

Status: Non-Operational

Uplink: 145.850 MHz
Downlink: 436.775 MHz

Broadcast Callsign: SASAT1-11
BBS: SASAT1-12

Further information is available at:
http://www.amsat.org/amsat/sats/n7hpr/so41.html
[01222007]
=====
AO-40 AMSAT OSCAR 40
Catalog number: 26609
Launch Date: November 16, 2000

Status: Non-Operational

Uplinks

V-band: 145.840 - 145.990 MHz CW/LSB
U-band: 435.550 - 435.800 MHz CW/LSB
L1-band: 1269.250 - 1269.500 MHz CW/LSB
L2-band: 1268.325 - 1268.575 MHz CW/LSB

Downlinks

S2-band: 2401.225 - 2401.475 MHz CW/USB
K-band: 24048.010 - 24048.060 MHz CW/USB
Beacon: 2401.323 MHz
24048.035 MHz

P3-D Telemetry Beacons (IHU)

BEACON General Beacon(GB) Middle Beacon(MB) Engineering Beacon(EB)
2 m none 145.898 MHz none
70cm 435.438 MHz 435.588 MHz 435.838 MHz
13cm(1) 2400.188 MHz 2400.338 MHz 2400.588 MHz
13cm(2) 2401.173 MHz 2401.323 MHz 2401.573 MHz
3cm 10450.975 MHz 10451.125 MHz 10451.375 MHz
1.5cm 24047.885 MHz 24048.035 MHz 24048.285 MHz
[07162007]
=====
OO-38 OPAL
Catalog Number: 26063
Launch Date: January 27, 2000

Status: Non-Operational

Mode U TLM Beacon
Downlink: 437.1000 MHz 9600 FSK
[08132007]
=====
UO-36 UoSAT-12
Catalog number: 25693
Launch date: April 21, 1999

Status: Unknown

Uplink: 145.960 MHz (9600-baud FSK)
Downlinks: 437.025 MHz
437.400 MHz

Broadcast Callsign: UO121-11
BBS: UO121-12

The VK5HI viewer shareware for UO-36 is available on the AMSAT-NA web
site at the following URL:
ftp://ftp.amsat.org/amsat/software/win32/display/ccddsp97-119.zip
[01222007]
=====
SO-35 SUNSAT
Catalog Number: 25636
Launch date:February 23, 1999

Status: Non-Operational

Downlink: Mode B Repeater: 436.291 MHz
Mode J Digipeater: 436.250 MHz

Uplinks: Mode B Repeater: 145.825 MHz
Mode J Digipeater: 145.825 MHz
145.900 MHz

For more information of SUNSAT vist the satellite web site:
http://esl.ee.sun.ac.za/projects/sunsat/
[01222007]
=====
PO-34 PANSAT
Catalog number: 25520
Launch date: October 30, 1998

Status: Telemetry downloads only

Uplink/downlink: 436.500 MHz

Official Webpage: http://www.sp.nps.navy.mil/pansat/
[05092004]
=====
SO-33 SEDSAT-1
Catalog number: 25509
Launch date: October 24, 1998

Status: Semi-operational

Downlink: 437.910 MHz FM (9600-baud FSK)

The satellite is not currently available for uplink transmissions and
the image and transponder recovery efforts have been unsuccessful.

For more information on SedSat-1 visit the satellite web site:
http://seds.uah.edu/projects/sedsat/sedsat.htm
[09042006]
=====
GO-32 Gurwin TechSat-1B
Catalog number: 25397
Launch Date: July 10, 1998

Status: Non-Operational

Current Modes:
Telemetry : /u

Downlink: 435.225 MHz FM (9600-baud FSK)
435.325 Mhz - Not Available - temperature problems
Uplinks: 145.850 FM
145.890 FM
145.930 FM
1269.700 FM
1269.800 FM
1269.900 FM

Broadcast Callsign: 4XTECH-11
BBS Callsign: 4XTECH-12

More information of GO-32 can be found at:
http://asri.technion.ac.il/techsat/

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=14&retURL
=/satellites/status.php
[07172010]
=====
TO-31 TMSAT-1
Catalog number: 25396
Launch Date: July 10, 1998

Status: Non-operational

Uplink: 145.925 MHz 9600 baud FSK
Downlink: 436.925 MHz 9600 baud FSK

Broadcast callsign: TMSAT1-11
BBS: TMSAT1-12
[05012006]
=====
MO-30 UNAMSAT-2
Catalog Number: 24305
Launch Date: September 5, 1996

Status: Non-operational

Downlink: 435.1380 MHz AFSK 1200 BPS
Downlink: 435.2060 MHz AFSK 1200 BPS
Uplink: 145.8150 MHz AFSK 1200 BPS
Uplink: 145.8350 MHz AFSK 1200 BPS
Uplink: 145.8550 MHz AFSK 1200 BPS
Uplink: 145.8750 MHz AFSK 1200 BPS
[06042009]
=====
PO-28 POSAT-1
Catalog number: 22829

Launch Date: September 25, 1993

Status: Non-operational

Downlink: 429.950
Uplink: Not until handover back to Amatuer usage

Broadcast callsign: POSAT1-11
BBS callsign: POSAT1-12

AMSAT Webpage: http://www.amsat.org/amsat/sats/n7hpr/po28.html
POSAT-1 webpage:
http://www.ee.surrey.ac.uk/SSC/CSER/UOSAT/missions/posat1.html
[01012009]
=====
AO-27 AMRAD
Catalog number: 22825
Launch Date: September 26, 1993 0140z
Launch site: Kourou, French Guiana

Status: Recovery efforts in progress

Current Mode: V/u

Uplink: 145.850 MHz FM
Downlink: 436.797 MHz FM

Mode and Antenna Polarization:
V: Linear
U: Linear

Official Webpage: http://www.ao27.org
[12032012]
=====
IO-26 ITAMSAT
Catalog number: 22826
Launch Date: September 26, 1993 0140z

Status: PSK carrier only

Current Mode:

Uplinks: 145.875 MHz FM 1200-baud
145.900 MHz FM 1200-baud
145.925 MHz FM 1200-baud
145.950 MHz FM 1200-baud

Downlink: 435.808 MHz PSK

Broadcast Callsign: ITMSAT-11
BBS: ITMSAT-12

Official webpage: http://www.itamsat.org
AMSAT Webpage: http://www.amsat.org/amsat/sats/n7hpr/io26.html
[01212007]

=====
KO-25 KITSAT
Catalog number: 22828
Launch date: September 26, 1993

Status: Non-operational

Uplink: 145.980 MHz FM 9600-baud FSK
Downlink: 436.500 MHz FM

Broadcast Callsign: HL02-11
BBS: HL02-12
[05092004]
=====
AO-24 ARSENE
Catalog Number: 22654
Launch Date: May 13, 1993

Status: Non-operational

Uplink: 435.0625 MHz FM 1k2bps AFSK
435.1125 MHz FM 1k2bps AFSK
435.1375 MHz FM 1k2bps AFSK
Downlink: 145.9750 MHz FM 1k2bps AFSK
2446.5025 MHz FM 1k2bps AFSK

Beacon: 2446.4700 MHz CW

Broadcast callsign:
BBS:
[12162009]
=====
KO-23 KITSAT
Catalog number: 22077
Launch date: August 10, 1992

Status: Non-operational

Uplink: 145.900 MHz FM (9600-baud FSK)
Downlink: 435.170 MHz FM

Broadcast Callsign: HLO1-11
BBS: HLO1-12
[01222007]
=====
UO-22 UOSAT
Catalog number: 21575
Launch date: July 17, 1991

Status: Non-Operational

Uplink: 145.900 FM 9600-baud FSK
Downlink: 435.120 MHz FM

Broadcast Callsign: UOSAT5-11
BBS: UOSAT5-12
[01222007]
=====
AO-21 AMSAT-OSCAR 21
Catalog Number: 21087
Launch Date: January 29, 1991

Status: Non-Operational

Uplink: 435.041 MHz FM DSP
Downlink: 145.983 MHz FM DSP
[01222007]
=====
FO-20 JAS-1b
Catalog number: 20480
Launch Date: February 07, 1990

Status: Non-Operational

Beacons: 435.795 MHz CW
435.910 MHz AX25

Voice Transponder:
Uplink: 145.900 to 146.000 MHz CW/LSB
Downlink: 435.800 to 435.900 MHz CW/USB

Digital Transponder:
Uplinks: 145.850 MHz
145.870 MHz
145.890 MHz
145.910 MHz
Downlink: 435.910 MHz

More FO-20 info can be found at:
http://www.amsat.org/amsat/sats/n7hpr/fo20.html
[01152007]
=====
WO-18 WEBERSAT
Catalog Number: 20441
Launch Date: January 22, 1990

Status: Non-Operational

Downlink: 437.104 MHz SSB 1200 Baud PSK AX.25
[05012006]
=====
DO-17 Dove
Catalog Number: 20440
Launch Date: January 22, 1990

Status: Non-operational.

Downlink: 145.825 MHz FM 1200 Baud AFSK
Beacon: 2401.220 MHz

[05012006]
=====
AO-16 PACSAT
Catalog number: 20439
Launch Date: January 22, 1990

Status: non-operational

Current Mode: V/u

Uplink: 145.900 MHz FM 1200-baud Manchester FSK (reserved)
145.920 MHz FM VOICE
145.940 MHz FM 1200-baud Manchester FSK (reserved)
145.960 MHz FM 1200-baud Manchester FSK (reserved)

Downlink: 437.026 MHz USB VOICE
(1200-baud PSK - MBL Telemetry Only)

Mode-S Beacon: 2401.1428 MHz [NO FUTURE OPERATIONS PLANNED]

Mode and Antenna Polarization:
U: RC 437.050 MHz RHCP
PSK 437.026 MHz LHCP
V: Linear

Broadcast Callsign: PACSAT-11
BBS: PACSAT-12

AO-16 AMSAT Webpage: http://www.amsat.org/amsat/sats/n7hpr/ao16.html
[07242009]
=====
UO-15 UoSAT-4
Catalog Number: 20438
Launch Date: January 22, 1990

Status: Non-operational

Uplink: ?
Downlink: 435.1250MHz (?)
435.1200MHz (?)
[06042009]
=====
UO-14 UoSAT-3
Catalog number: 20437
Launch date: January 22, 1990

Status: Non-operational

Uplink: 145.975 MHz FM
Downlink: 435.070 MHz FM
[05092004]
=====
FO-12 Fuji-OSCAR 12
Catalog Number: 16909

Launch Date: August 12, 1986

Status: Non-Operational

Mode V/U (J) Linear Transponder (Inverting):
Uplink: 145.9000 - 146.0000 MHz SSB/CW
Downlink 435.8000 - 435.9000 MHz SSB/CW

Mode V/U (J) Packet:
Uplink: 145.8500 MHz MFSK 1200 BPS
Uplink: 145.8700 MHz MFSK 1200 BPS
Uplink: 145.8900 MHz MFSK 1200 BPS
Uplink: 145.9100 MHz MFSK 1200 BPS

Downlink 435.9100 MHz PSK 1200 BPS

Telemetry Beacon: 435.7950 MHz SSB/CW
[01152007]
=====
AO-10 OSCAR 10
Catalog number: 14129
Launch Date: June 16, 1983

Status: Non-operational

Uplink: 435.030 to 435.180 MHz CW/LSB
Downlink: 145.975 to 145.825 MHz CW/USB

Beacon: 145.810 MHz (unmodulated carrier)

W4SM has more information about the satellite at the following URL:
http://www.cstone.net/~w4sm/AO-10.html
[05092004]
=====
AO-8 AMSAT-OSCAR 8
Catalog Number: 10703
Launch Date: March 3, 1978

Status: Non-Operational

Mode V/U (J) Linear Transponder (Non-Inverting): Non-Operational
Uplink: 145.9000 - 146.0000 MHz SSB/CW
Downlink 435.1990 - 435.2000 MHz SSB/CW

Mode V/U (J) TLM Beacon: Non-Operational
Downlink 435.0950 MHz CW

Mode V/A (A) Linear Transponder (Non-Inverting): Non-Operational
Uplink: 145.8500 - 145.9000 MHz SSB/CW
Downlink 29.4000 - 29.5000 MHz SSB/CW

Mode V/A (A) TLM Beacon: Non-Operational
Downlink 29.4020 MHz CW
[01152007]
=====

AO-6 AMSAT-OSCAR 6
Catalog Number: 06236
Launch Date: October 15, 1972

Status: Non-Operational

Uplink: 145.9000 - 146.0000 MHz SSB/CW
Downlink: 29.4500 - 29.5500 MHz SSB/CW
Beacons: 29.450 MHz
435.100 MHz
[01312008]
=====
AO-5 Australis-OSCAR 5
Catalog Number: 04321
Launch Date: January 23, 1970

Status: Non-Operational

Telemetry Beacons: 144.0500 MHz CW
29.4500 MHz CW
[01152007]
=====
OSCAR III
Catalog Number: 01293
Launch Date: March 09, 1965

Status: Non-Operational

Uplink: 145.9750 - 146.0250 MHz SSB/CW
Downlink: 144.3250 - 144.3750 MHz SSB/CW
[01012007]
=====
RS-15 RADIO SPORT RS-15
Catalog number: 23439
Launch Date: December 26, 1994

Status: Non-operational

Uplink: 145.858 to 145.898 MHz CW/USB
Downlink: 29.354 to 29.394 MHz CW/USB

Beacon 1: 29.352 MHz (intermittent)
Beacon 2: 29.398 MHz

SSB meeting frequency: 29.380 MHz (unofficial)
[06202004]
=====
RS-13 RADIO SPORT RS-13
Catalog number: 21089
Launch date: February 5, 1991

Status: Non-operational

Uplink: 21.260 to 21.300 MHz CW/USB
Downlink: 145.860 to 145.900 MHz CW/USB

Beacon: 145.860 MHz

Robot: 145.908 MHz
[05232004]
=====
RS-12 RADIO SPORT RS-12
Catalog number: 21089
Launch date: February 5, 1991

Status: Non-operational

Uplink: 21.210 to 21.250 MHz CW/USB
Downlink: 29.410 to 29.450 MHz CW/USB

Beacon: 29.408 MHz

Robot: 29.454 MHz
[05232004]
NNNN
/EX

SB SAT @ AMSAT W8ISS $WSR-041.S4
WSR 041 Part 4 02/11/2013

AMSAT NEWS SERVICE BULLETIN 041.S4
FROM AMSAT HQ SILVER SPRING, MD, February 11, 2013
TO ALL RADIO AMATEURS
BID: $WSR-041.S4

THE FOLLOWING SATELLITES HAVE RE-ENTERED OR HAVE BEEN RETURNED SAFELY:

HAWKSAT 1
Catalog number: 35004
Launch Date: May 19, 2009 2355z
Launch site: Wallops Island, Virginia, USA

Status: re-entered
Re-entry date: September 04, 2012

Downlink: 437.345 MHz ?

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=105
[02112013]
=====
ARISSat-1
Catalog number: 37772
Launch date: August 03, 2011 1843z
Launch site: International Space Station

Status: Re-entered January 05, 2012

Callsign: RS01S

Current Mode(s):
Linear Transponder: U/v
Uplink: 435.758 to 435.742 MHz CW/LSB
Downlink: 145.922 to 145.938 MHz CW/USB

FM Telemetry/SSTV/Messages/ID:
Downlink: 145.950 MHz FM

Telemetry/Beacon:
Downlink: 145.939 MHz CW1
145.919 MHz CW2
145.920 MHz 1k BPSK USB
145.920 MHz 400b BPSK USB

Official Webpage:http://www.amsat.org/amsat-new/ARISSat/ARISSat.php

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/informal_detail.php?serialnum=89
[01052012]
=====
CP-6
Catalog Number: 35003
Launch Date: May 19, 2009 2355z
Launch site: Wallops Island, Virginia, USA

Status: Re-enetered October 06, 2011

Downlink: 437.365 MHz 1k2 AFSK

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=121
[01282013]
=====
Pharmasat
Catalog Number: 35002
Launch Date: May 19, 2009 2355z
Launch site: Wallops Island, Virginia, USA

Status: Re-entered August 14, 2012

Downlink: 437.465 MHz 1k2 AFSK

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=94
[01282013]
=====
ANUSAT
Catalog Number: 34808
Launch Date: April 20, 2009 0115z
Launch Site: Satish Dhawan Space Centre, India

Status: Re-entered
Re-entery date : April 18, 2012

Downlink: 435.000 MHz
Uplink: 145.800 MHz

Telemetry: 137.400 MHz
[02112013]
=====
CAERUS (Mayflower)
Catalog Number: 37252
Launch Date: December 08, 2010 15:43:00 UTC
Launch site: Kennedy Space Center, Titusville, Florida, USA

Status: Re-entered December 22, 2010

Uplink:
Downlink: 437.600 MHz 1k2 AX.25

Beacon: 437.600 MHz CW

Callsign: KJ6FIX

URL:
http://www2.isi.edu/research/prj-serc/prj-serc_projects/prj-serc_proje
cts-8.htm

IARU coordination status page:

[01282013]
=====
Cinema
Catalog Number: 36764
Launch Date: September 13, 2012 2139z
Launch Site: Wallops Island, Virginia, USA

Status: Ren-entered
Re-entry date: Spetember 10, 2010

Uplink:
Downlink:
Engineering: 2400 - 2450MHz
Telemetery: 2200 - 2300MHz

Beacon:

Callsign:

URL:
[02112013]
=====
CO-56 CUTE-1.7 + APD
Catalog number: 28941
Launch date: February 21, 2006

Status: Re-entered
Re-entered: October 25, 2009

Uplink: 1268.5000 MHz GMSK 9600 BPS
Downlink: 437.4700 MHz 1200 FM ax25 or SRLL (ACTIVE only near Japan?)

Telemetry Beacon: 437.3850 CW
Callsign: JQ1YPC

Information webpage:
http://lss.mes.titech.ac.jp/ssp/spacerium/cute1blog/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=56
[09062010]
=====
BEVO-1 (DRAGONSAT-1)
Catalog Number: 35690
Launch Date: May 19, 2009

Status: Re-entered
Re-entered:

Downlink: 437.325 MHz 9k6 GMSK
437.325 MHz CW 20wpm

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=117
[07312009]
=====
AggieSat2 (DRAGONSAT-2)
Catalog Number: 35690
Launch Date: May 19, 2009

Status: Re-entered
Re-entered:

Downlink: 436.250 MHz 9k6 FHSS
[11112009]
=====
Pollux
Catalog Number: 35693
Launch Date: July 31, 2009

Status: Re-entered
Re-entered:

Callsign: POLLUX-1

Downlink: 145.825MHz 1k2 AX.25

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=139
[09062010]
=====
Castor (ANDE-2)
Catalog Number: 35694
Launch Date: July 31, 2009

Status: Re-entered
Re-entered:

Callsign: KD4HBO-1

Downlink: 145.825 MHz 1k2 AX.25

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=144
[09062010]
=====
NO-62 FCAL
Catalog Number: 29667
Launch Date: December 21, 2006

Status: Re-Entered
Re-entered: July 28, 2008

Downlink: 437.385 Mhz APRS AX25

Downlink ID: KD4HBO

Website: http://eng.usna.navy.mil/~bruninga/fcal.html

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=59
[01012009]
=====
NO-61 ANDE
Catalog Number: 29664
Launch Date: December 21, 2006

Status: Re-Entered
Re-entered: December 25, 2007

Uplink/Downlink: 145.825 Mhz FM APRS AX25
[01032008]
=====
NO-60 RAFT-1
Catalog Number: 29661
Launch Date: December 21, 2006

Status: Re-Entered
Re-entered: May 30, 2007

Main Downlink: 145.825 Mhz FM APRS AX25
APRS Uplink: 145.825 MHz FM APRS AX25
Voice/PSK31 Uplink: 28.120 MHz

Packet to Voice ID: RAFT
[06112007]
=====
GENESAT-1
Catalog Number: 29655
Launch Date: December 16, 2006

Status: Re-Entered
Re-entered date: August 8, 2010

Current Mode: /u

Callsign: KE7EGC

Telemetry Beacon Downlink: 437.0695 MHz AFSK 1200 BPS

Official webpage: http://www.crestnrp.org/genesat1/ahc.html
[08082010]
=====
HO-59 HITSat
Catalog number: 29484
Launch date: September 22, 2006

Status: Re-Entered
Re-entered: June 18, 2008

Telemetry Downlink: 437.4250 MHz AFSK 1200 BPS
Beacon: 437.2750 MHz CW

Callsign: JR8YJT
[01012009]
=====
SO-43 Starshine 3
Catalog Number: 26929
Launch Date: September 30, 2001

Status: Re-Entered
Re-entered: January 21, 2003

Beacon: 145.825Mhz
[02212009]
NNNN
/EX

ANS is released worldwide via the AMSAT ANS e-mail reflector and a
live
radiocast on the AMSAT-NA 20-meter net held each Sunday on 14.282 MHz.
Pre-net operations start at 18:00 UTC, with current ANS bulletins
trans-
mitted to the eastern U.S. at 19:00 UTC and to the western U.S. at
19:30
UTC.

Information on AMSAT-NA is available at the following URL:
http://www.amsat.org

Mailing address:
AMSAT-NA
850 Sligo Avenue, Suite 600
Silver Spring, Maryland 20910-4703

Voice: 301-589-6062
888-322-6728
FAX: 301-608-3410

Currently, AMSAT-NA supports the following (free) mailing lists:

* AMSAT News Service (ANS)
* General satellite discussion (AMSAT-BB)
* Orbit data (KEPS)
* Manned space missions (SAREX)
* District of Columbia area (AMSAT-DC)
* New England area (AMSAT-NE)
* AMSAT Educational Liaison mailing list (AMSAT-EDU)
* AMSAT K-12 Educational Liaison mailing list (AMSAT-K12)

A daily digest version is available for each list.

To subscribe, or for more list information, visit the following URL:
http://www.amsat.org/mailman/listinfo/ans

In addition to regular membership, AMSAT-NA offers membership in the President's Club. Members of the President's Club, as sustaining donors to AMSAT Project Funds, will be eligible to receive additional benefits. Application forms are available from the AMSAT-NA Office.

This week's Weekly Satellite Report Editor is James French, W8ISS.

ANS is always dedicated to past ANS editor 'BJ' Arts, WT0N, and to the memory of longtime AMSAT supporters Werner Haas, DJ5KQ, Dennis Kitchen, G0FCL and John Branegan GM4IHJ.

Please send any amateur satellite news or reports to: ans-editor{at}
amsat.org
NNNN
/EX

Via the ANS mailing list courtesy of AMSAT-NA
http://amsat.org/mailman/listinfo/ans

25. ANS-041 AMSAT News Service Weekly Bulletins

Newsgroup: rec.radio.amateur.space
Date: 2013-02-11 03:10:16 UTC
From: JoAnne Maenpaa <k9jkm@comcast.net>
Message-ID: <001501ce0805$4dd163f0$e9742bd0$@net>
Source record: 2
Cross-posted to: rec.radio.amateur.space,rec.radio.info

AMSAT NEWS SERVICE
ANS-041

ANS is a free, weekly, news and information service of AMSAT North America, The Radio Amateur Satellite Corporation. ANS reports on the activities of a worldwide group of Amateur Radio operators who share an active interest in designing, building, launching and communicating through analog and digital Amateur Radio satellites.

Please send any amateur satellite news or reports to:
ans-editor@amsat.org

In this edition:

* Mid-West USA High Altitude Balloon Launch on February 16
* Amateur Radio Participates in ISS Plasma Thrust Shadow Experiment
* CubeSats Form Asteroid Mining Exploration Fleet
* PCSAT normal(?) operations resume
* AMSAT-UK to provide Amateur Radio payload for ESEO satellite
* OSCAR-11 ANNUAL REPORT 2012
* UKube-1 to launch in June 2013
* Five new CubeSats hope for 2013 launch
* ARISS News
* Satellite Shorts From All Around

SB SAT @ AMSAT $ANS-041.01
ANS-041 AMSAT News Service Weekly Bulletins

AMSAT News Service Bulletin 041.01
>From AMSAT HQ SILVER SPRING, MD.
February 10, 2013
To All RADIO AMATEURS
BID: $ANS-041.01

Mid-West USA High Altitude Balloon Launch on February 16

The Iowa High Altitude Balloon team says their iHAB-9 balloon flight is scheduled to launch February 16, 2013 at 16:00Z (9AM CDT). The Mission Control web page will give you flight status, an APRS tracking map, webcast, and live chat. Please go to:
http://www.ihabproject.com/iHAB-9/
http://www.ihabproject.com/iHAB-9/MissionControl/

On February 16 the flight schedule is presently at:
Webcast: 14:ØØZ - 8AM CDT
Launch: 15:ØØZ - 9AM CDT

The payload includes:

+ APRS beacon - WØOTM-11 on 144.39Mhz running OpenTracker+
and Alinco DJ-C7 - VHF/UHF 3ØØ/5ØØmw

+ 2ØM QRP Beacon, 1.5 Watts on 14.057.85 +/- Mhz

+ 1.2Ghz live video downlink

The latest flight status and additional information can be accessed
on the iHAB web pages.

[ANS thanks the iHAB-9 Team for the above information]

Amateur Radio Participates in ISS Plasma Thrust Shadow Experiment

On February 1, 2, 3, and on February 8, 9, 10 the Russian Central
Research Institute of Machine Building (TSNIIMASH) conducted a space
plasma experiment from the International Space Station to evaluate
the shape of a "radio dead zone" which is expected to occur with the
use of an on-board arcjet plasma source.

Future space exploration plans to use electric thrusters.
Integration of electric thrusters causes an electromagnetic
compatibility side-effect when highly ionized exhaust plumes of the
thrusters may scatter RF-signals producing large "dead" zone for
communications.

The SpEx Shadow experiment on the ISS activated an onboard arcjet
source to inject a plasma plume in space. The amateur radio packet
beacon operating on 145.825 MHz was activated to transmit a VHF
sounding signal with time ticks. Due to refraction/scattering of the
sounding signals in the exhaust plume, the shadow region would occur.
Participating amateur radio stations noted the time tick to register
loss of signal and re-acquisition of the 145.825 MHZ signal as the
footprint caused by the plasma jet passed their geographic location.

An example of the ISS SpEx Shadowing Beacon can be found on the
DK3WN SatBlog website at:

http://www.dk3wn.info:

RS0ISS]CQ,qAR,SR5GK-3:]ARISS - International Space Station
DK3WN]BEACON,RS0ISS*,qAR,SR5GK-3:SpEx SHADOW 20:30:57 *DL* 02-02-2013/
DK3WN]BEACON,RS0ISS*,qAR,SR5GK-3:SpEx SHADOW 20:30:39 *DL* 02-02-2013/

Additional details of the Shadowing Experiment are posted on the
TSNIIMASH web site at:

http://knts.tsniimash.ru/Shadow/en/Default.aspx

[ANS thanks TSNIIMASH and Mike Rupprecht, DK3WN for the above
information]

CubeSats Form Asteroid Mining Exploration Fleet

In an article posted on the SpaceDaily.com website, "Commercial Asteroid Hunters Announce Plans For New Robotic Exploration Fleet", Deep Space Industries claims it will send a fleet of asteroid-prospecting spacecraft out into the solar system to hunt for resources to accelerate space development to benefit Earth.

These "FireFly" spacecraft utilize low-cost CubeSat components and get discounted delivery to space by ride-sharing on the launch of larger communications satellites.

FireFlies with a mass of about 55 lb will first be launched in 2015 on journeys of two to six months. Starting in 2016, Deep Space will begin launching 70-lb DragonFlies for round-trip visits that bring back samples. The DragonFly expeditions will take two to four years, depending on the target, and will return 60 to 150 lb.

Read the full article posted at:
http://www.tinyurl.com/CubeSat-Explorer-Fleet (SpaceDaily.com)

[ANS thanks SpaceDaily.com for the above information]

PCSAT normal(?) operations resume

PCSAT (NO44) is again returned to users (but not usable until a few weeks when sun angles get better).

The variation of power available to PCSAT is inversely proportional to the "sun-to-orbitplane-angle" (viewable in Instantrack with the "E" and "D" keys. It is currently above 78 degrees. Once it went above about 65 degrees was our last successful commanding.

Recovery did not work this period. But we learned enough to be more successful in the Fall.

A "sun-to-orbitplane-angle" means PCsat's orbit is now over the day/night terminator meaning it is in full sun (no eclipses) with solar power coming in on the (weaker) side panels and little if any on the +Z face(best panel). Attitude is maintained by alignment with the Earth's magnetic field. It's the best time for a recovery (no eclipses to cause a reset), but the worst time for commanding. It is too weak to respond to the needed logon and 3 additional commands. Though it will be strong again as the sun angle improves (lower).

Then it will have better sun on the +Z face for commanding, but then it will be doing Eclipses. And even though we can then command it to turn off unnecessary loads, it does not have enough time before the next eclipse to charge up enough to survive the next eclipse.

What we did (re)learn is a condensed command method where we can put all 3 PCSAT low-power commands in a single packet (using the TNC's ^V pass character). That way, we only need a successful logon to

complete the Restoration. 1) The CONNECT ACK. 2) The password challenge, 3) Then the command prompt. Then we can hit it with the full low-power command set and disconnect all in one packet which cancels the need for PCSAT to respond to each command separately.

On the FIRST day available in full sun(our best shot), I not only got logged on, but completed all 3 requried functions. Then signals sounded so good, I got greedy and put in the another three (which also improves power budget, but not as much as the first three). Yep, I gambled and lost. It died on the last one! The next day I got all 3 in, and it died on the 3rdcommand due to a user packet I think. Days since, I have been unable to logon. Hence, end of this attempt period.

In most attempts in the past (after successful logon) we would send one command at a time to give it a few seconds rest between each one. But these 3 commands then required 3 ACKS and 3 RESPONSES in addition to the 3 required to get logged. Those extra 6 packets kill it, especially if there was a user packet in there. Next time all we need are the 3 loggon responses.

Also, next time, we will give users advance warning to QRT all transmissions when we are trying to command. Each one of their packets robs us of power we need to complete the command. I failed to warn everyone this time, and so we had some interference.

As sun angle improves, You may continue to experiment with PCSAT during MIDDAY passes. That is when it is strongest (in the Northern Hemisphere), but do limit yourself to only attended operations so humans can actually contact humans, or if you are doing an unattended test, keep your transmissions to once every 2 minutes. That should let you get one good successful packet per pass. Which is the mission of PCSAT.

See the downlink on http://pcsat.aprs.org

There you can see the telemetry packets (list at the bottom of page) right now are rarely getting above 001 meaning typically a minute or so of life before it gets overloaded and resets back to 000.

It is easy to visualize the relationship of the sun angle to the orbit plane and to see how that affects power budget given that our best panel (out of 5) is on the +Z face and that is magnetically aligned to point towards magnetic South. There is NO panel on the -Z which is why PCsat is rarely usable in the Southern Hemisphere (not planned, but just a result of it crashing in every eclipse).

Just thought you would like to know what is going on with one of the oldest student projects in space that is still "semi-operational" for users.

[ANS thanks Bob, Wb4APR for the above information]

AMSAT-UK to provide Amateur Radio payload for ESEO satellite

AMSAT-UK will be providing a 1260/145 MHz FM transponder and a 145 MHz BPSK telemetry beacon for the European Student Earth Orbiter (ESEO). This is the third mission within the European Space Agency's
Education Satellite Programme.

Nine European universities will be working with the prime contractor ALMASpace, Italy, on the mission. Cranfield University in Bedfordshire will be supplying a small sail that will be deployed to demonstrate the de-orbiting of spacecraft at the end of the mission.

The primary purpose of the AMSAT-UK payload is to provide a downlink telemetry that can be easily received by schools and colleges for educational outreach purposes. The data will be displayed in an attractive format and provide stimulation and encouragement for students to become interested in all STEM subjects in a unique way.

The target audience is primarily students at both primary and secondary levels and the project includes the development of a simple and cheap "ground station" operating on VHF frequencies
in the
Amateur Satellite Service. This station is an omni-directional antenna feeding a FUNcube DonglePRO+ SDR receiver which will receive the signals direct from the satellite and transfer the data to specially developed graphical software running on any Windows laptop.

More information is available at
http://www.uk.amsat.org/?p487

[ANS thanks Trevor Essex, M5AKA for the above information]

OSCAR-11 ANNUAL REPORT 2012

This report covers the period from 01 January 2012 to 01 January 2013. During this time there have been no significant changes apart from the gradual drift of the on-board clock. The satellite has been transmitting on a regular cycle of 10.35 days on followed by 10.35 days off.

OSCAR-11 (AKA UoSAT-2 and UO-11) celebrated it's 28th birthday in space on 01 March! It was designed, built and launched within a period of six months, using commercially available 'off the shelf' components (COTS). Once again, congratulations to Professor Sir Martin Sweeting G3YJO, his team at the University of Surrey and the groups of radio amateurs who also contributed to the project.

Good copy has been obtained obtained from decoded telemetry frames and many reports have been posted on the DCARR general satellite status website, The satellite continues to be subjected to eclipses

during each orbit, resulting in weaker signals at those times. During the summer in the UK all passes were in sunlight, however the eclipses gradually returned during the autumn and now all evening passes are eclipsed and signals are significantly weaker than in the morning passes.

The on-board clock gained 85 seconds during the year, which is comparable with the 60 seconds gain per year when the satellite was launched. There is however a large accumulated error of 308.54204 days slow. This was caused mainly by the clock stopping during eclipses, when there was also an unknown drain on the power supply. The units of the least significant digit correspond approximately to seconds (0.86 seconds actually).

At the present time, while OSCAR-11 is operating in a predictable way, please DO NOT send reports or files by e-mail. However, could all listeners continue to enter their reports on the general satellite status website. This is a very convenient and easy to use facility, which shows the current status of all the amateur satellites, and is of use to everyone. Reports around the expected times of switch-on and switch-off are of special interest, especially for times 13:00 to 18:00 and 22:00 to 08:00 UTC, to when the satellite is out-of-range in the UK . The URL is http://oscar.dcarr.org/index.php

The VHF beacon frequency is 145.826 MHz. AFSK FM ASCII Telemetry. The satellite is operating in the default mode, controlled by the watchdog timer, with a cycle time of 20.7 days. 10.35 days on followed by 10.35 days off.

An extended version of this report is available on my website, and new listeners to OSCAR-11 should read this for further information. The URL is www.g3cwv.co.uk/oscar11.htm . This page contains links to the report, a short audio clip to help you identify the satellite and a file of recent telemetry received. The website also contains an archive of news & telemetry data which is updated from time to time, and details about using a soundcard or hardware demodulators for data capture. There is also software for capturing data, and decoding ASCII telemetry. The easiest way to check whether OSCAR-11 is operational is to look at the General Satellite Status website http://oscar.dcarr.org/index.php .

If you place this bulletin on a terrestrial packet network, please use the bulletin identifier $BID:U2RPT158.CWV, to prevent duplication.

[ANS thanks Clive Wallis, G3CWV for the above information]

UKube-1 to launch in June 2013

The Herald newspaper reports that the CubeSat UKube-1 will be launched in June, 2013.

The spacecraft is being built for the UK Space Agency (UKSA) by Clyde Space and the launch will take place from Baikonur in Kazakhstan on a Soyuz-2 along with TechDemoSat-1.

The newspaper reports that Clyde Space has announced plans for a base in the United States.

UKube-1 will carry a set of AMSAT-UK FUNcube boards to provide an amateur radio 435/145 MHz linear transponder and a 1200 bps BPSK beacon for educational outreach

[ANS thanks Trevor, M5AKA for the above information]

Five new CubeSats hope for 2013 launch

Five new CubeSats being developed in Taiwan, Vietnam and the United States are hoping to fly during 2013.

PACE is the first nanosatellite developed the National Cheng Kung University (NCKU) of Taiwan and has the objective to provide a platform for attitude control experiments in space.
More Information is available at
http://satellite.ncku.edu.tw/pace/en/home.htm

TARO is a 2U CubeSat developed by the National Cheng Kung University (NCKU) of Taiwan. TARO is the precursor of PACE satellite which was also developed by NCKU and has an objective to verify the function of sensors and actuators which have been used at PACE.
More Information is available at
http://satellite.ncku.edu.tw/pace/en/home.htm

PicoDragon is a 1U CubeSat project intended to take low resolution earth images and to test on board systems. Planning to use two UHF transmitters. One 100mW CW beacon on 437.250 MHz and a 1k2 AFSK 800mW AX25 telemetry downlink. Commands will be uplinked on VHF.
More Information is available at
http://vnsc.org.vn/

United States, Alabama – ChargerSat-1. The primary mission is to perform a technology demonstration of gravity gradient stabilization, improved solar collection and improved horizon communications on a pico-satellite. This is the team's first CubeSat and is a technology
demonstration of their capabilities as students
More Information is available at
http://space.uah.edu/

United States, California – SNAPS. This spacecraft has dimensions of
25x113x113mm, has a mass of less than 0.5kg and is intended to image other CubeSats autonomously using H264 compression. The team is proposing a UHF downlink using 9k6 AFSK and will utilize Carpcomm ground stations.

Planned for a SpaceX flight from Vandenberg AFB in April 2013
together with POPACS.

[ANS thanks Trevor, M5AKA for the above
information]

ARISS News

ARISS Switches to Ericsson Radio After experiencing Problems with
tthe Kenwood D700

After experiencing issues with the Kenwood D700 on two consecutive
school contacts, ARISS will use the Ericsson Radio on the Columbus
module for ARISS contacts until problems with D700 are resolved.

According to Frank Bauer, KA3HDO, AMSAT's Vice President for Human
Spaceflight Programs, "...for some reason, our signals from the
Service Module Kenwood D700 radio are much diminished. Our contact
with Israel last Sunday had low audio levels, with good signals only
near TCA. Our contact yesterday with the Hospital for Sick Children
was even worse. Only one student was able to talk to Chris Hadfield
before we lost the signal. The crew reports hearing the ground
station well. Both these contacts were with our telebridge stations,
some of the best out there. Also note that Chris Hadfield got on the
IP Phone, immediately after the Hospital radio contact and answered
all the student’s questions, using that communications medium.
So,
while not optimal, we were able to make both these ARISS events
successful

After the Hospital contact, we had a full court press to revise
uplinks and procedures to use the Ericsson radio that was recently
installed in the Columbus Module instead of the D700. This was
worked well into the crew sleep period, with the procedures ready for
the crew at wakeup. While we had not fully checked out the radio, we
felt the benefits of using this system outweighed the risks of using
the D700, given its recent past performance. Our contact with the
Japan school, using the Columbus Module Ericsson radio was very
successful. We plan to use it on the contacts planned for next week."

+ Contacts scheduled for this coming week

ARISS is requesting listener reports for these contacts. Due to
issues with the Kenwood radio that are not fully understood at
present, the Ericsson radio is going to be used for these contacts.
ARISS thanks everyone in advance for their assistance.

Breadalbane Academy, Aberfeldy, United Kingdom, telebridge via W6SRJ
Contact is a go for: Tue 2013-02-12 09:22:57 UTC 26 deg

Chief Peguis Jr. High, Winnipeg, Manitoba, Canada, telebridge via
VK5ZAI

Contact is a go for: Wed 2013-02-13 19:47:43 UTC 55 deg

+ At the following link you will find a listing of all scheduled
school contacts, and questions, other ISS related websites, IRLP
and Echolink websites, and instructions for any contact that may
be streamed live.
http://www.amsat.org/amsat/ariss/news/arissnews.rtf

+ QSL information may be found at:
http://www.arrl.org/ARISS/arissfaq.html
http://www.rac.ca/ariss/oindex.htm#QSL's

+ ISS callsigns: DPØISS, NA1SS, OR4ISS, RSØISS

+ There have been rumors in the past indicating that the ISS was
having direct contacts on the 40 meter band. The HF antenna is
mounted, however, there is no HF radio equipment on board.
Sometimes WA3NAN will retransmit shuttle audio.

[ANS thanks ARISS and AJ9N for the above information]

Satellite Shorts From All Around

+ The FITSAT-1 optical experiment is the topic of an article posted
at Space.com. See "Tiny Japanese Satellite Beams Morse Code Messages
from Space", by Leonard David at:
http://tinyurl.com/ag47bed [Space.com]

+ The AMSAT mail list archives remain accessible despite the temp-
orary outage of general content at www.amsat.org. Access the the
amsat-bb and sarex lists can be found at:
http://www.amsat.org/amsat-new/tools/maillist/
Access to subscribe to AMSAT mail lists can be found at:
http://www.amsat.org/mailman/listinfo
Access the AMSAT News Service Archives can be found at:
http://amsat.org/pipermail/ans/ [Joanne Maenpaa]

+ Who is On Board the ISS

Exp. 33/34
Oleg Novitskiy
Kevin Ford KF5GPP
Evgeny Tarelkin

Exp. 34/35
Chris Hadfield KC5RNJ/VA3OOG
Roman Romanenko
Tom Marshburn KE5HOC

[ANS thanks Charlie AJ9N for the above information]

+ Near Earth asteroid 2012 DA14 will pass inside the geostationary
satellite orbits February 15. This object will make an extremely

close approach to within 0.00023 AU of Earth at 19:25 UT (11:25 AM PST) on February 15, 2013.

For more information visit
http://echo.jpl.nasa.gov/asteroids/2012DA14/2012DA14_planning.html

[ANS thanks Tom Clark K3IO for the the above information]

+ Hello Kitty in Near Space
Near space weather balloon built by seventh grader Lauren Rojas and launched with help from her father, Rod, Reaching an altitude of over 90,000. The photography in this video is quite good, especially when the balloon bursts.

YouTube Video
http://www.youtube.com/watch?v=EsCTG4-Gg

/EX

In addition to regular membership, AMSAT offers membership in the President's Club. Members of the President's Club, as sustaining donors to AMSAT Project Funds, will be eligible to receive additional benefits. Application forms are available from the AMSAT Office.

Primary and secondary school students are eligible for membership at one-half the standard yearly rate. Post-secondary school students enrolled in at least half time status shall be eligible for the student rate for a maximum of 6 post-secondary years in this status. Contact Martha at the AMSAT Office for additional student membership information.

73,
This week's ANS Editor,
EMike McCardel, KC8YLD

26. Weekly Highlights of Solar and Geomagnetic Activity, 04 - 10 February 2013

Newsgroup: rec.radio.amateur.space
Date: 2013-02-11 16:33:37 UTC
From: SWPC.Webmaster@noaa.gov
Message-ID: <20130211163001.B555F33C8C@panix2.panix.com>
Source record: 3
Cross-posted to: rec.radio.amateur.misc,rec.radio.amateur.dx,rec.radio.amateur.space,rec.radio.shortwave,rec.radio.info

```
:Product: Weekly Highlights and Forecasts
:Issued: 2013 Feb 11 1018 UTC
# Prepared by the US Dept. of Commerce, NOAA, Space Weather Prediction Center
# Product description and SWPC contact on the Web
# http://www.swpc.noaa.gov/weekly.html
#
# Weekly Highlights and Forecasts
#
Highlights of Solar and Geomagnetic Activity
04 - 10 February 2013

Solar activity was low. The largest flare of the period, a C8/1f
with associated Type-II (estimated at 548 km/s) and Type-IV radio
sweeps, originated from Region 1667 (N22, L=200, class/area Dso/100)
on 06/0021 UTC. A CME with an earth-directed component was
subsequently observed in LASCO C3 imagery at 06/0042 UTC. A long
duration C2 flare associated with a 27 heliographic degree Hyder
flare eruption centered near N23W06 at 09/0640 UTC was also
observed. This event also produced a potentially earth-directed CME
which was observed in LASCO C2 imagery at 09/0709 UTC. The largest
active region of the period was Region 1665 (N10, L=242, class/area
Hsx/170 on 04 February), but this region failed to produce any flare
events. The most magnetically complex region was Region 1670 (N17,
L=161, class/area Dsi/160 on 10 February), although still on the
disk, this region has also failed to produce any flare events. In
additon to the CMEs already described, several other were noted on
LASCO and STEREO coronagraph imagery throughout the week. Most of
these were associated with filament eruptions, but none deemed
geoeffective.

No proton events were observed at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit was at
normal to moderate levels.

Geomagnetic field activity was predominately quiet with two periods
of unsettled conditions (08/0600-0900 UTC and 08/1500-1800 UTC)
prompted by the 08/0400 UTC arrival of the 06 Feb CME desribed
above.

Forecast of Solar and Geomagnetic Activity
11 February - 09 March 2013

Solar activity is expected to be very low to low.
```

No proton events are expected at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit is expected to be at normal to moderate levels for most of the week, possibly reaching high levels on 13 - 18 February in response to positive polarity coronal holes/high speed streams (CHs/HSSs) 93 and 94.

Geomagnetic field activity is expected to be predominately quiet, with isolated unsettled conditions on 12 Feb, when the Hyder flare CME mentioned earlier is expected to arrive. Quiet to unsettled conditions are expected to persist through 16 February due to CH HSS effects.

27. Crossposting Permitted to rec.radio.amateur.moderated

Newsgroup: rec.radio.amateur.space
Date: 2013-02-15 07:00:03 UTC
From: rram@panix.com
Message-ID: <radio/ham-radio/moderated/crossposting-1-1360911602@panix.com>
Source record: 4
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.amateur.space,rec.radio.info

```
Posted-By: auto-faq 3.3.2 beta (PGPMoose V2.0, Perl 5.005)
Archive-name: radio/ham-radio/moderated/crossposting
Revision: 1.2 2011/11/02 04:08:53
Posting-Frequency: posted twice monthly
URL: http://www.panix.com/~rram/usenet/rram/index.html

Changes followed by "|".

After a 30-day public discussion and feedback period to gauge reader
opinions in March of 2009:

http://groups.google.com/group/rec.radio.amateur.moderated/browse_thread/thread/d7d337db35
f23326

the rec.radio.amateur.moderated Moderation Team had decided to consider |
amending its charter, and permit limited simultaneous crossposting to
rec.radio.amateur.moderated and one other unmoderated
amateur-radio-related discussion newsgroup. After a successful trial |
period (90 days, through early July 2009), we decided to adopt this |
change permanently. |

Approved rec.radio.amateur.* newsgroups are those that are currently
listed in the latest version of the "List of Big Eight Newsgroups" which
is crossposted monthly to news.announce.newgroups, news.groups, and
news.lists.misc.

Approved alt.radio.amateur.* and alt.ham-radio.* newsgroups are those
that have been created consistent with the suggestions in "So You Want
to Create an Alt Newsgroup" at:

http://www.faqs.org/faqs/alt-creation-guide/

Approved regional hierarchy newsgroups are those that contain either
"radio.amateur" or "ham-radio" in their names, including
uk.radio.amateur and aus.radio.amateur.misc.

We will make every reasonable effort to keep our list of approved
newsgroups up-to-date. In case we have overlooked any, and a submission
is rejected in error as a result, the rejected submitter can E-mail us
at our administrative contact address (in the signature at the bottom of
this article, and the default Reply-To for the rejection message)
requesting that it be added, and that the article be approved. We may
still choose to reject articles crossposted to any alt.* newsgroup with
an inappropriate name, including obscene language, embedded
name-calling, or encouragement of unlawful conduct.
```

Please direct any comments, questions, or criticisms to
rec-radio-amateur-moderated-request@panix.com.

28. WSR-049 AMSAT Weekly Satellite Report

Newsgroup: rec.radio.amateur.space
Date: 2013-02-16 19:41:13 UTC
From: JoAnne Maenpaa <k9jkm@comcast.net>
Message-ID: <001c01ce0c7d$41666d00$c4334700$@net>
Source record: 5
Cross-posted to: rec.radio.amateur.space,rec.radio.info

```
This report is organized into three (3) parts.
Part 1 (S1) - operational analog amateur satellites
Part 2 (S2) - operational digital amateur satellites
Part 3 (S3) - non - operational satellites

SB SAT @ AMSAT W8ISS $WSR-049.S1
WSR 049 Part 1 02/18/2013

AMSAT NEWS SERVICE BULLETIN 049.S1
FROM AMSAT HQ SILVER SPRING, MD, February 18, 2013
TO ALL RADIO AMATEURS
BID: $WSR-049.S1

PW-Sat
Catalog Number: 38083
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: On Orbit

Uplink: 435.020 MHz FM
Downlink: 145.900 MHz DSB

Beacon:

Callsign:

URL:

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=132
[02112013]
=====
DO-64 Delfi-C3
Catalog number: 32789
Launch Date: April 28, 2008 0354z
Launch site: Satish Dhawan Space Centre, India

Status: Operational
Current Mode: Science Mode - Beacon ONLY

Telemetry: 145.870 MHz

Downlink: 145.880 to 145.920 MHz
Uplink: 435.530 to 435.570 MHz

Delfi-C3 web page: http://www.delfic3.nl/
```

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=68
[02112013]
=====
VO-52 HAMSAT
Catalog number: 28650
Launch Date: May 05, 2005 0444z
Launch site: Satish Dhawan Space Centre, India

Status: Operational
Current Mode: U/v - Dutch Transponder

Frequencies:
Indian Transponder:
Uplink: 435.220 to 435.280 MHz LSB/CW
Downlink: 145.930 to 145.870 MHz USB/CW

Dutch Transponder:
Uplink: 435.225 to 435.275 MHz LSB/CW
Downlink: 145.925 to 145.875 MHz USB/CW

Indian Beacon: 145.9360 MHZ CW
Dutch Beacon: 145.860 MHz 12WPM with CW message

Mode and Antenna Polarization:
V: LHCP
U: RHCP

Official Webpage: http://www.amsatindia.org/hamsat.htm

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=30

To know what transponder is switched on please listen for the beacon
that is active. Each transponder has a different beacon.
[02112013]
=====
SO-50 SAUDISAT-1C
Catalog number: 27607
Launch date: December 20, 2002 1700z
Launch site: Baikonur, Kazakhstan

Status: Operational

Current Mode: V/u

Uplink: 145.850 MHz FM - 67.0 Hz PL tone
Downlink: 436.795 MHz

Mode and Antenna Polarization:
V: Linear
U: Linear

Official Webpage: http://saudisat.kacst.edu.sa/index.shtml
(not up and running currently)

To switch the transmitter on, you need to send a CTCSS tone of 74.4
Hz. The order of operation is thus: (allow for Doppler as necessary):
1) Transmit on 145.850 MHz with a tone of 74.4 Hz to arm the 10 minute
timer on board the spacecraft.
2) Now transmit on 145.850 MHz (FM Voice) using 67.0 Hz to PT the re-
peater on and off within the 10 Minute window.
3) Sending the 74.4 tone again within the 10 minute window will reset
the 10 minute timer.
[02112013]
=====
FO-29 JAS-2
Catalog number: 24278
Launch Date: August 17, 1996

Status: Operational
Current Mode: V/u (Mode JA)

Voice/CW (Mode JA)
Uplink: 145.90 to 146.00 MHz CW/LSB
Downlink: 435.80 to 435.90 MHz CW/USB
Beacon: 435.795 MHz

Digital Mode JD
Uplinks: 145.850 MHz FM
145.870 MHz FM
145.910 MHz FM
Downlink: 435.910 MHz 1200-baud BPSK or 9600-baud FSK
Callsign: 8J1JCS
Digitalker: 435.910 MHz

Mode and Antenna Polarization:
V: RHCP
U: RHCP

For current operational schedule for FO-29:
http://www.ne.jp/asahi/m-arai/gkz/satinfo/fo29e.htm

JARL English webpage:
http://www.jarl.or.jp/English/5_Fuji/ejasmenu.htm

AMSAT-NA Webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID
=5&retURL=/satellites/status.php

Mineo Wakita, JE9PEL, has created a simple decoder program for FO29's
CW telemetry downlink: http://www.ne.jp/asahi/hamradio/je9pel/
fo29cwts.htm
[02112013]
=====
AO-7 AMSAT OSCAR 7
Catalog number: 07530
Launch Date: November 15, 1974
Launch site: Vandenberg AFB, California, USA

Status: Operational

Current Mode: Alternating between Mode A and B every 24 hours

Uplink: 145.850 to 145.950 MHz CW/USB Mode A
432.125 to 432.175 MHz CW/LSB Mode B
Downlink: 29.400 to 29.500 MHz CW/USB Mode A (1W PEP)
145.975 to 145.925 MHz CW/USB Mode B (8W PEP)
145.975 to 145.925 MHz CW/USB Mode C (2W PEP)
Beacons: 29.502 MHz CW
145.972 MHz CW
435.100 MHz CW
2304.100 MHz CW

Official Webpage:
http://www.amsat.org/amsat-new/satellites/sat_summary/ao7.php
[02112013]
=====
INTERNATIONAL SPACE STATION (ISS) - ARISS
Catalog number: 25544
Launch date: November 20, 1998 0640z (ZARYA module)
Launch sites: Baikonur, Kazakhstan
Kourou, French Guiana
Uchinoura Space Center, Japan
Kennedy Space Center, Titusville, Florida, USA

Status: Operational

Current Active Modes: FM Repeater - OFF
Voice - V/v
BBS - V/v
2m APRS - V/v
2m Digi - V/v
70cm APRS - ?
70cm Digi - ?
SSTV - V/v

Expedition 34 Crew (November 2012 - March 2013):
Commander: Kevin Ford KF5GPP
Flight Engineer: Oleg Novitskiy
Flight Engineer: Evgeny Tarelkin
Flight Engineer: Roman Romanenko
Flight Engineer: Chris Hadfield KC5RNJ/VA3OOG
Flight Engineer: Tom Marshburn KE5HOC

Available Modes and Frequencies:
Digital/APRS:
Worldwide 2m packet uplink: 145.825 MHz FM 1k2
Worldwide 2m packet downlink: 145.825 Mhz FM 1k2
Worldwide 70cm packet uplink: 437.550 Mhz FM 1k2
Worldwide 70cm packet downlink: 437.550 Mhz FM 1k2

Voice:
Region 1 voice uplink: 145.200 MHz FM

Region 2/3 voice uplink: 144.490 MHz FM
Worldwide downlink: 145.800 MHz FM

Crossband Repeater:
Repeater Uplinks: 1269.650 MHz FM
437.800 MHz FM
145.990 MHz FM - 67.0 PL (Kenwood)
Repeater Downlink: 145.800 MHz FM
437.800 MHz FM (Kenwood)

SSTV Robot 36:
Downlink: 145.800 MHz FM

Mode and Antenna Polarization:
V: Linear
U: Linear

Callsigns:
Belgian: OR4ISS
German: DP0ISS
Russian: RS0ISS
RZ3DZR
United States: NA1SS
2m Packet Mailbox: RS0ISS-11
2m Digipeater alias: ARISS
70cm Packet Mailbox: RS0ISS-1
70cm Digipeater callsign: RS0ISS
70cm Digipeater alias: ARISS

Official ARISS Webpage: http://www.rac.ca/ariss
ISS Fan Club Webpage: http://www.issfanclub.com
APRS tracking page: http://www.ariss.net/

ISS Daily Crew Schedule: http://spaceflight.nasa.gov/station/timelines
Remember that the crew operates on UTC time. Also, all of the time
line is NOT translated from Russian and posted.
[02112013]
NNNN
/EX

SB SAT @ AMSAT W8ISS $WSR-049.S2
WSR 049 Part 2 02/18/2013

AMSAT NEWS SERVICE BULLETIN 049.S2
FROM AMSAT HQ SILVER SPRING, MD, February 18, 2013
TO ALL RADIO AMATEURS
BID: $WSR-049.S2

Fitsat-1
Catalog number: 38853
Launch Date: October 04, 2012
Launch site: Kibo Japanese Experiment Module, International Space
Station

Status: Operational

Uplink:
Downlink(s): 437.445MHz 1k2 AFSK
5840.00 MHz 115k2 data
LED CW (200w pulses)

Beacon(s): 437.250 MHz CW

Callsign: NIWAKA

URL: http://carpcomm.com/satellite/fitsat1
[10292012]
=====
TechEdSat
Catalog number: 38854
Launch date: October 04, 2012
Launch site: Kibo Japanese Experiment Module, International Space
Station

Uplink(s):
Downlink(s): 437.465 1k2 AFSK

Beacon(s):

Callsign:

URL:http://www.techedsat.com/
[10152012]
=====
We Wish
Catalog number: 38856
Launch date: October 04,2012
Launch Site: Kibo Japanese Experiment Module, International Space
Station

Uplink(s):
Downlink(s): 437.505MHz 1k2 AFSK
437.505MHz SSTV

Beacon(s): 437.505MHz CW

Callsign: JQ1ZIJ

URL:
[10152012]
=====
F-1
Catalog number: 38855
Launch Date: October 04, 2012
Launch Site: Kibo Japanese Experiment Module, International Space
Station

Uplink(s):
Downlink(s): 145.980MHz 1k2 AFSK

437.485MHz FM moduled CW

Baecon(s):

Callsign: XV1VN

URL: http://fspace.edu.vn/
[10152012]
=====
Aeneas
Catalog Number: 38760
Launch Date: September 13, 2012 2139z
Launch Site: Wallops Island, Virginia, USA

Status: On Orbit

Uplink: WiFi 2425MHz
Downlink:
WiFi: 2425MHz
Spread Spectrum: Somewhere in the 70cm band

Beacon: 437.600MHz 1k2 ax25 every 10 seconds

Callsign:

URL:
[10012012]
=====
CSSWE (Colorado Student Space Weather Experiment)
Catalog Number: 38761
Launch Date: September 12, 2012 2139z
Launch Site: Wallops Island, Virginia, USA

Status: On Orbit

Uplink:
Downlink: 437.345MHz 9k6 with ax.25

Beacon:

Callsign:

URL:
[10012012]
=====
CP5 (Polysat)
Catalog Number: 38763
Launch Date: September 12, 2012 2139z
Launch Site: Wallops Island, Virginia, USA

Status: On Orbit

Uplink:
Downlink: 437.405MHz AFSK on LSB ax.25 over NRZI at 1k2 baud,
every 2

minutes, begins 3.5 hours after first turn-on

Beacon:

Callsign:

URL:
[10012012]
=====
CXBN (Cosmic X-Ray Background Nanosatellite)
Catalog Number: 38762
Launch Date: September 12, 2012 2139z
Launch Site: Wallops Island, Virginia, USA

Status: On Orbit

Uplink:
Downlink: 437.525MHz GFSK ax.25

Beacon:

Callsign:

URL:
[10012012]
=====
Proiteres
Catalog Number: 38756
Launch Date: September 09, 2012 2139z
Launch Site: Satish Dhawan Space Centre, India

Status: On Orbit

Uplink:
Downlink: 437.485MHz FM/AFSK

Beacon:

Callsign: JL3YZK

URL:
[10012012]
=====
RS-40 MiR (Yubileiny-2)
Catalog Number: 38735
Launch Date: July 28, 2012
Launch Site: Plesetsk Missile and Space Complex, Russia

Status: On Orbit

Uplink:
Downlink(s): 435.265 MHz
435.365 MHz

Beacon:

Callsign:

URL:
[08272012]
=====
HORYU-II
Catalog number: 38340
Launch Date: May 17, 2012 1639z

Status: On Orbit

Uplink: 145.??? MHz
Downlink: 437.375 MHz CW/AX25/FSK

Beacon: 437.375 MHz CW

Callsign: JG6YBW

URL:

IARU Coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=216
[10012012]
=====
XaTcobeo
Catalog Number: 38082
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: Operational

Uplink:
Downlink: 437.365 MHz FFSK with AX.25

Beacon:

Callsign:

URL:

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=135
[100162012]
=====
UniCubeSat
Catalog Number: 38085(?)
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: Operational

Uplink:
Downlink: 437.305 MHz 9k6 bps GMSK

Beacon:

Callsign:

URL:
http://www.gaussteam.com/index.php?option=com_content&view=article&id=
96:unicu
besat&catid=36:unicubesat&Itemid=183

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=133
[10012012]
=====
Robusta
Catalog Number: 38083(?)
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: On Orbit

Uplink:
Downlink: 437.325 MHz 1k2 FM telemetry (data every 3 min, 20 sec.
burst)

Beacon:

Callsign:

URL:

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=122
[10012012]
=====
MO-72 MaSat-1
Catalog Number: 38081
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: Operational

Uplink:
Downlink: 437.345 MHz GFSK 625/1250 bps
437.345 MHz CW

Beacon:

Callsign:

URL:

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=126
[10012012]
=====
Goliat
Catalog Number: 38084(?)
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: Operational

Uplink:
Downlink: 437.485 MHz 1k2 AFSK

Beacon:

Callsign:

URL:

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=98
[10012012]
=====
E-St@r
Catalog Number: 38079
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: On Orbit

Uplink:
Downlink: 437.445 MHz 1k2 bps AFSK

Beacon:

Callsign:

URL:

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=130
[10012012]
=====
ALMASat-1
Catalog Number: 38078
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: On Orbit

Uplink:
Downlink: 437.465 MHz 1k2 bps FSK
2407.850 MHz

Beacon:

Callsign:

URL:

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=39
[10012012]
=====
RS-39 Chibis-M

Catalog Number: 38051
Launch Date: October 30, 2011 10:11:00 UTC
Launch site: Tyuratam (Baikonur Cosmodrome), Kazakhstan

Status: Operational

Uplink:
Downlink:

Beacon: 435.315 MHz CW
435.215 MHz CW

Callsign:

URL:

IARU coordination status page:
[07302012]
=====
JUGNU
Catalog Number: 37839
Launch Date: October 12, 2011 05:30:00 UTC
Launch site: Satish Dhawan Space Centre, India

Status: On Orbit

Uplink: 145.??? MHz 1k2 (mode?)
Downlink: 437.505 MHz 9k6 (mode?)

Beacon: 437.275 MHz 15 wpm (?) CW

Callsign:

URL: http://www.iitk.ac.in/me/jugnu/index.htm

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=160
[07092012]
=====
SRMSAT
Catalog Number: 37841
Launch Date: October 12, 2011 05:30:00 UTC
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Uplink: 145.900 MHz 1k AX.25 (speed?)
Downlink: 437.500 MHz 2k4 AX.25

Beacon: 437.425 MHz 12 wpm CW

Callsign:

URL: http://srmsat.in/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=181
[01282013]
=====
HRBE (E1P Explorer 1 [Prime] CubeSat (E1P-U2))
Catalog Number: 37855
Launch Date: October 28, 2011
Launch site: Vandenberg Air Force Base, California, USA

Status: On Orbit

Uplink: 437.305 MHz (???)
Downlink: 437.505 MHz AX.25 (SSB?)

Beacon:

Callsign:

URL: http://ssel.montana.edu/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=116
[01122012]
=====
M-Cubed
Catalog Number: 37855
Launch Date: October 28, 2011
Launch site: Vandenberg Air Force Base, California, USA

Status: On Orbit

Uplink:
Downlink: 437.485 MHz AX.25

Beacon:

Callsign:

URL: http://umcubed.org/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=215
[01122012]
=====
RAX-2
Catalog Number: 37853
Launch Date: October 28, 2011
Launch site: Vandenberg Air Force Base, California, USA

Status: Operational

Uplink:
Downlink: 437.345MHz 9k6 GMSK

Beacon:

Callsign:

URL: http://rax.engin.umich.edu//

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=221
[03232012]
=====
AO-71 AubieSat-1
Catalog Number: 37854
Launch Date: October 28, 2011
Launch site: Vandenberg Air Force Base, California, USA

Status: On Orbit

Uplink:
Downlink: 437.475 MHz 1k2 AX.25

Beacon: 437.475 MHz CW

Callsign: KI4NQO

URL: http://www.space.auburn.edu/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=148
[12262011]
=====
O/OREOS
Catalog Number: 37224
Launch Date: November 20, 2010
Launch site: Kodiak Launch Complex, Alaska, USA

Status: On Orbit

Uplink:
Downlink: 437.035 MHZ AX.25

Beacon:

Callsign:

URL: http://www.ooreos.org/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=146
[02092011]
=====
Rax-1 Radio Aurora Explorer
Catalog Number: 37223
Launch Date: November 20, 2010
Launch site: Kodiak Launch Complex, Alaska, USA

Status: On Orbit

Uplink:
Downlink: 437.505 MHz 9k6 GMSK

Beacon:

Callsign: RAX-1

URL: http://rax.engin.umich.edu/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=165
[02092011]
=====
FO-69 Fastrac-1 Sara Lily
Catalog Number: 37227
Launch Date: November 20, 2010
Launch site: Kodiak Launch Complex, Alaska, USA

Status: Operational

Uplink 1: 145.980 MHz 1k2 baud
Uplink 2: 145.825 MHz 1k2 baud
Downlink: 437.345 MHz 1k2 and 9k6 baud

Beacon: 437.435 MHz 1k2 AX.25

Callsign: Fast1

URL: http://fastrac.ae.utexas.edu/index.php

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=83
[07052011]
=====
FO-70 Fastrac-2 Emma
Catalog Number: 37380
Launch Date: November 20, 2010
Launch site: Kodiak Launch Complex, Alaska, USA

Status: Operational

Uplink 1: 435.025 MHz 1k2 baud
Uplink 2: 437.435 MHz 9k6 baud
Downlink: 145.825 MHz 1k2 and 9k6 baud

Beacon: 145.825 MHz 1k2 AX.25

Callsign: Fast2

URL: http://fastrac.ae.utexas.edu/index.php

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=84
[12162011]
=====
StudSat

Catalog Number: 36796
Launch Date: July 12, 2010 0352z
Launch site: Satish Dhawan Space Centre, India

Status: On Orbit

Uplink: 437.505MHz, 9600bps FSK
Downlink: 437.505MHz, 9600bps FSK
Beacon : 437.505MHz, 20bps ASK

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=164
[02092011]
=====
TIsat-1
Catalog Number: 36799
Launch Date: July 12, 2010 0352z
Launch site: Satish Dhawan Space Centre, India

Status: On orbit

Callsign: HB9DE

Uplink: 145.980MHz FM, AFSK
Downlink: 437.305MHz FM, AFSK
Beacon: 437.305MHz CW

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=118
[02092011]
=====
SwissCube
Catalog Number: 35932
Launch Date: September 23, 2009 0621z
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Callsign: HB9EG

Beacon(100mw): 437.5050MHz CW
Beacon(1w): 437.5050MHz FSK 1k2bps

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=109
[02092011]
=====
UWE-2
Catalog Number: 35934
Launch Date: September 23, 2009 0621z
Launch site: Satish Dhawan Space Centre, India

Status: In Orbit

Beacon(500mw): 437.3850 MHz AFSK 1k2bps
437.3850 MHz FSK 9k6bps

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=110
[02092011]
=====
ITUpsAT1
Catalog Number: 35935
Launch Date: September 23, 2009 0621z
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Beacon(100mw): 437.325MHz CW
Beacon(1w): 437.325MHz 19k2bps

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=113
[02092011]
=====
BEESAT
Catalog Number: 35933
Launch Date: September 23, 2009 0621z
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Callsign: DP0BEE

Beacon(100mw): 436.000MHz CW
Beacon(500mw): 436.000MHz GMSK 4k8bps
Beacon(500mw): 436.000MHz GMSK 9k6bp
[02092011]
=====
SOHLA-1 (ASTRO TECH.)
Catalog Number: 33496
Launch Date: January 23, 2009 0354z
Launch site: Tanegashima Space Center, Japan

Status: Operational

Proposed Frequencies and Modes:
Downlink: 437.505 MHz AFSK/CW
Beacon: 437.505 MHz AFSK/CW

Callsign:

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=101
[02092011]
=====
KAGAYAKI (Solan Co.)
Catalog Number: 33495
Launch Date: January 23, 2009 0354z

Launch site: Tanegashima Space Center, Japan

Status: In Orbit

Downlink: 437.375 MHZ FSK9k6/CW
Beacon: 437.375 MHz FSK9k6/CW

IARU coordination status page:

AMSAT-NA webpage:

[02092011]
=====
STARS (Kagawa Univ.) (Twin Satellites)
Catalog Number: 33498
Launch Date: January 23, 2009 0354z
Launch site: Tanegashima Space Center, Japan

Status: Operational ?

Downlinks: 437.485 MHz FM/CW
437.465 MHz FM/CW
Beacons: 437.305 MHz FM/CW
437.275 MHz FM/CW

Callsigns: JR5YBN
JR5YBO

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=99

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=121&retURL
=/satellites/status.php
[02092011]
=====
KKS-1 (Tokyo MCIT)
Catalog Number: 33499
Launch Date: January 23, 2009 0354z
Launch site: Tanegashima Space Center, Japan

Status: Operational

Downlink: 437.455 MHz AFSK/CW
Beacon: 437.385 MHz AFSK/CW

Callsign: JQ1YYY

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=107

AMSAT-NA webapge:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=120&retURL
=/satellites/status.php
[20092011]

=====
PRISM (Tokyo Univ.)
Catalog Number: 33493
Launch Date: January 23, 2009 0354z
Launch site: Tanegashima Space Center, Japan

Status: Operational

Uplink: 145.xxx MHz AFSK 1k2
Downlink: 437.425 MHz AFSK 1k2
Beacon: 437.250 MHz CW

Callsign: JQ1YCX

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=97

Read terms and conditions of operations at the PRISM web page to find
out how
to properly operate on the satellite and to get the uplink frequency.
It
has
been asked that the uplink frequency not be given out untik you have
read and
understood the terms of usage.

URL:
http://www.space.t.u-tokyo.ac.jp/prism/en/HAMservice.html
[10282012]
=====
RS-30 Radio Sputnik 30 (Yubileiny)
Catalog Number: 32953
Launch Date: May 23, 2008 1520z
Launch site: Plesetsk Missile and Space Complex, Russia

Status: Operational

Curent Modes: Telemetry
Audio
Images

Downlinks: 435.315 MHz
435.215 MHz

AMSAT-NA website:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=115&ret
URL=/satellites/status.php

Official website:
http://www.npopm.com/?cid=leoca&caid=43
[02092011]
=====
CanX-2
Catalog number: 32790

Launch Date: April 28, 2008 0354z
Launch site: Satish Dhawan Space Centre, India

Status: Operational in range of ground station only

Downlink: 437.478 MHz GFSK

For the latest project status update please visit the Can X-2 web
page: http://www.utias-sfl.net/nanosatellites/CanX2/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=46
[02092011]
=====
AAUSAT-II
Catalog number: 32788
Launch Date: April 28, 2008 0354z
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Downlink: 437.425 MHz 1k2 baud packet

For the latest project status update please visit the AAUSAT-II web
page:
http://www.aausatii.aau.dk/homepage/index.php?language=en&page=home

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=60
[02092011]
=====
CO-65 CUTE-1.7+APD II
Catalog number: 32785
Launch Date: April 28, 2008 0354z
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Downlink: 437.475 MHz 9k6 Packet
Uplink: 1267.600 Mhz

Telemetry Beacon:
Downlink: 437.2750 MHz CW

For the latest project status update please visit the Cute-1.7+APD II
web page: http://lss.mes.titech.ac.jp/ssp/cute1.7/index_e.html

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=78

Command Station blog website:
http://lss.mes.titech.ac.jp/ssp/cute1.7/blog/

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=112&retURL

=/satellites/status.php
[03232012]
=====
Compass-1
Catalog number: 32787
Launch Date: April 28, 2008 0354z
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Current Mode: dependant on last received command

Uplink: 145.980 MHz FM
Downlink: 437.275 Mhz CW
437.405 MHz Packet

For the latest project status update please visit the Compass 1 web
page: http://www.raumfahrt.fh-aachen.de/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=52

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=114&retURL
=/satellites/status.php
[06162011]
=====
CO-66 Seeds II
Catalog number: 32791
Launch Date: April 28, 2008 0354z
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Downlink: 437.485 MHz

Callsign: JQ1YGU

For the latest project status update please visit the Seeds 2 web
page: http://cubesat.aero.cst.nihon-u.ac.jp/english/seeds_2_e.html

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=36

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=113&retURL
=/satellites/status.php
[073092011]
=====
CAPE-1
Catalog Number: 31130
Launch Date: April 17,2007 0702z
Launch site: Baikonur, Kazakhstan

Status: Intermittent

Current Mode: /u

TLM Downlink: 435.245 MHz 9600 bs FSK AX.25
CW Beacon: 435.245 MHz CW

Callsign: K5USL

TLM and CW interchange every 30 seconds.

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=94&retURL=
/satellites/status.php

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=72
[02092011]
=====
CP3
Catalog Number: 31129
Launch Date: April 17,2007 0702z
Launch site: Baikonur, Kazakhstan

Status: Operational

Current Mode: /u

Downlink: 436.845 MHz 1200 bps AFSK AX.25

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=74
[02092011]
=====
CO-58 CubeSat XI-V
Catalog number: 28895
Launch Date: October 27, 2005 0652z
Launch site: Plesetsk Missile and Space Complex, Russia

Status: Operational - CW Beacon only

Current Mode: /u

Telemetry Downlink: 437.4250 MHz AFSK 1200bps using AFK protocol
Beacon: 437.2750 MHz CW

Callsign: JQ1YGW

Official Webpage: http://www.space.t.u-tokyo.ac.jp/cubesat/mission/V/

Pictures received by Mineo Wakita - JE9PEL:
http://www.ne.jp/asahi/hamradio/je9pel/xivpicte.htm

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=37
[02092011]
=====

CO-57 CubeSat XI-IV
Catalog number: 27848
Launch date: June 30, 2003 1415z
Launch site: Plesetsk Missile and Space Complex, Russia

Status: ?????

Current Mode: /u

Beacon: 436.8475 MHz CW
Telemetry : 437.4900 MHz AFSK 1200 BPS

Callsign: JQ1YGW

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=96&retURL
=/satellites/status.php

Official Webpage: http://www.space.t.u-tokyo.ac.jp/cubesat/mission/V/
[02092011]
=====
QuakeSat
Catalog Number: 27845
Launch Date: June 30, 2003 1415z
Launch site: Plesetsk Missile and Space Complex, Russia

Status: Telemetry only

Current Mode: 9600 baud data packet

Mode U packet
Downlink: 436.675 MHz 9k6 BPS

Quakesat webpage:
http://www.quakefinder.com/services/quakesat-ssite/
[02252011]
=====
CO-55 Cute-1.7+APD II
Catalog Number: 27844
Launch date: June 30, 2003 1415z
Launch site: Plesetsk Missile and Space Complex, Russia

Status: Operational

Current Mode: CW downlink worldwide
AX25 Packet with uplink command over Japan only

Mode U Telemetry
Downlink: 437.4000 MHz AFSK 1200 BPS

Mode U TLM Beacon
Downlink: 436.8375 MHz CW

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=69&retURL

=/satellites/status.php

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=78
[02092011]
=====
NO-44 PCSAT
Catalog number: 26931
Launch Date: September 30, 2001 0240z
Launch site: Kodiak Launch Complex, Alaska, USA

Status: Operational

Current Mode: V/v

General Usage Uplink/Downlink: 145.827 MHz 1200 Baud
Special Usage Downlink: 144.390 Mhz 1200 Baud

PCSAT APRS page: http://pcsat.aprs.org

aprstlm Telemetry Decoder program:
http://www.xciv.org/~iain/aprstlm/v1.2/
[10292012]
=====
RS-22 RADIO SPORT 22 (MOZHAYETS 4)
Catalog number: 27939
Launch Date: September 27, 2003 0612z
Launch site: Plesetsk Missile and Space Complex, Russia

Status: Operational - 70cm cw only

Current Mode: /u

CW Beacon - 435.352 MHz
145.818 MHz

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=76&retURL
=/satellites/status.php
[02092011]
=====
LO-19 LUSAT
Catalog number: 20442
Launch date: January 22, 1990
Launch site: Kourou, French Guiana

Status: CW Beacon only

Uplinks: 145.840 MHz 1200-baud Manchester FSK
145.860 MHz 1200-baud Manchester FSK
145.880 MHz 1200-baud Manchester FSK
145.900 MHz 1200-baud Manchester FSK

CW downlink: 437.125 MHz

Digital downlink: 437.150 MHz SSB (RC-BPSK 1200-baud PSK)

Broadcast Callsign: LUSAT-11
BBS: LUSAT-12

General information and telemetry samples can be found at:
www.telecable.es/personales/ea1bcu
[02092011]
=====
UO-11 OSCAR-11
Catalog number: 14781
Launch Date: March 1, 1984
Launch site: Vandenburg AFB, California, USA

Status: Operational ?

Current Mode: /v

Telemetry Downlink: 145.825 MHz FM 1200 AFSK
UHFBeacon: 435.025 MHz
Mode-S Beacon: 2401.500 MHz

Mode and Antenna Polarization:
V: RHCP
S: LHCP

Webpage: http://www.users.zetnet.co.uk/clivew/
MPEG3 files: http://www.ne.jp/asahi/hamradio/je9pel/uo11tlme.htm
[07052011]
=====
INTERNATIONAL SPACE STATION (ISS) - ARISS
Catalog number: 25544
Launch date: November 20, 1998 0640z (ZARYA module)
Launch sites: Baikonur, Kazakhstan
Kourou, French Guiana
Uchinoura Space Center, Japan
Kennedy Space Center, Titusville, Florida, USA

Status: Operational

Current Active Modes: FM Repeater - OFF
Voice - V/v
BBS - V/v
2m APRS - V/v
2m Digi - V/v
70cm APRS - ?
70cm Digi - ?
SSTV - V/v

Expedition 34 Crew (November 2012 - March 2013):
Commander: Kevin Ford KF5GPP
Flight Engineer: Oleg Novitskiy
Flight Engineer: Evgeny Tarelkin
Flight Engineer: Roman Romanenko

Flight Engineer: Chris Hadfield KC5RNJ/VA3OOG
Flight Engineer: Tom Marshburn KE5HOC

Available Modes and Frequencies:
Digital/APRS:
Worldwide 2m packet uplink: 145.825 MHz FM 1k2
Worldwide 2m packet downlink: 145.825 Mhz FM 1k2
Worldwide 70cm packet uplink: 437.550 Mhz FM 1k2
Worldwide 70cm packet downlink: 437.550 Mhz FM 1k2

Voice:
Region 1 voice uplink: 145.200 MHz FM
Region 2/3 voice uplink: 144.490 MHz FM
Worldwide downlink: 145.800 MHz FM

Crossband Repeater:
Repeater Uplinks: 1269.650 MHz FM
437.800 MHz FM
145.990 MHz FM - 67.0 PL (Kenwood)
Repeater Downlink: 145.800 MHz FM
437.800 MHz FM (Kenwood)

SSTV Robot 36:
Downlink: 145.800 MHz FM

Mode and Antenna Polarization:
V: Linear
U: Linear

Callsigns:
Belgian: OR4ISS
German: DP0ISS
Russian: RS0ISS
RZ3DZR
United States: NA1SS
2m Packet Mailbox: RS0ISS-11
2m Digipeater alias: ARISS
70cm Packet Mailbox: RS0ISS-1
70cm Digipeater callsign: RS0ISS
70cm Digipeater alias: ARISS

Official ARISS Webpage: http://www.rac.ca/ariss
ISS Fan Club Webpage: http://www.issfanclub.com
APRS tracking page: http://www.ariss.net/

ISS Daily Crew Schedule: http://spaceflight.nasa.gov/station/timelines
Remember that the crew operates on UTC time. Also, all of the time
line is NOT translated from Russian and posted.
[12242012]
NNNN
/EX

SB SAT @ AMSAT W8ISS $WSR-049.S3
WSR 049 Part 3 02/18/2013

AMSAT NEWS SERVICE BULLETIN 049.S3
FROM AMSAT HQ SILVER SPRING, MD, February 18, 2013
TO ALL RADIO AMATEURS
BID: $WSR-049.S3

THE FOLLOWING ARE IN ORBIT BUT ARE NON-OPERATIONAL AT THIS TIME:

NANOSAIL-D
Catalog Number: 37361
Ejection Date: January 17, 2011

Status: Non - Operational

Downlink: 437.270 MHz AX.25

URL: http://nanosaild.engr.scu.edu/dashboard.htm

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=115
[07302012]
=====
HO-68 HOPE-1 (CAS-1) (XW-1)
Catalog Number: 36122
Launch Date: December 15, 2009 0231z
Launch site: Taiyuan Space Center, PRC

Status: Telemetry only

Callsign:
Broadcast: BJ1SA-11
BBS: BJ1SA-12

Uplinks: 145.8250 MHz FM, PL 67.0 Hz.
145.9250 - 145.9750 MHz SSB/CW
145.8250 MHz AFSK 1200 BPS
Downlinks: 435.6750 MHz FM
435.7650 - 435.7150 MHz SSB/CW
435.6750 MHz AFSK 1200 BPS

Beacon: 435.7900 MHz CW

Mode and Antenna Polarization:
V: LHCP 2.0dBi max
U: RHCP 3.0dBi max

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=108

For more information about XW-1 (CAS-1):
http://
[04302012]
=====
SO-67 SumbandilaSat

Catalog Number: 35870
Launch Date: September 17, 2009 1555z
Launch site: Baikonur, Kazakhstan

Status: Non - Operational

Callsign: ZS0SUM

Uplink: 145.875MHz FM tone 233.6 Hz
Downlink: 435.345MHz FM

Mode and Antenna Polarization:
V: Linear
U: Linear

For more information about SO-67:
http://www.amsatsa.org.za/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=88
[01272012]
=====
CP4
Catalog Number: 31132
Launch Date: April 17, 2007

Status: Non-Operational

Current Mode: /u

TLM Downlink: 437.325 MHz 1200 bps FSK AX.25
CW Beacon: 437.325 MHz CW

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=79
[09062010]
=====
LIBERTAD-1
Catalog Number: 31128
Launch Date: April 17, 2007

Status: Non-Operational

Current Mode: V/u APRS Packet ax25

Callsign: 5K3L

Uplink: 145.825 MHz 1200 AFSK ax25 APRS
Downlink: 437.399 MHz 1200 AFSK ax25 APRS

Telemetry Beacon: 437.4050 MHz 1200 AFSK ax25

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=76
[09062010]

=====
PO-63 PEHUENSAT-1
Catalog Number: 29712
Launch Date: January 10, 2007

Status: Non-Operational

Current Mode: V/v

Uplink/Downlink: 145.825 Mhz FM
Voice Recorder: 145.825 Mhz FM

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=51
[09062010]
=====
NCUBE-2
Catalog number: 28897
Launch Date: October 27, 2005

Status: Still attached to XO-53 (SSETI)?

Proposed Callsign: TBA
Proposed Transmit Frequency: 437.305
2407.250

Official Website: http://www.ncube.no

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=24
[09062010]
=====
XO-53 SSETI
Catalog number: 28894
Launch Date: October 27, 2005

Status: Non-operational

Voice Uplink: 437.250 MHz FM 67Hz CTCSS
Voice Downlink: 2401.835 MHz FM
Packet Up/Downlink: 437.250 MHz 9k6 packet
Packet Downlink 2401.835 MHz 38k4 packet

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=54
[09062010]
=====
UWE-1
Catalog Number: 28892
Launch Date: October 27, 2005

Status: Non-Operational

Mode U Telemetry
Downlink: 437.5050 MHz 9600 AFSK

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=53
[09062010]
=====
AO-51 ECHO
Catalog number: 28375
Launch date: June 29, 2004 0745z
Launch site: Baikonur, Kazakhstan

Status: Non - Operational

Current Mode(s):
Voice repeater: V/u
Uplink: 145.880 MHz FM
Downlink: 435.150 MHz FM

Telemetry: Recovery efforts
Downlink: 435.150MHz 9k6

Analog voice downlink: 435.300 MHz FM
435.150 MHz FM
2401.200 Mhz FM
Analog voice uplink: 145.860 MHZ FM
145.880 MHz USB
145.880 MHz FM
145.920 MHz FM
145.920 MHz FM - 67 Hz PL tone burst
1268.705 MHz FM
Digital Downlinks: 435.150 MHz FM 38k4 PBP, 1 watt output
435.150 MHz FM 9k6 Pacsat Broadcast
Protocol
2401.200 MHz FM 38k4 bps, AX.25
Digital Uplink: 145.860 MHz FM 9k6 Pacsat Broadcast
Protocol
1268.703 mhz FM 9k6 Pacsat Broadcast
Protocol
Beacon: 435.150 MHz

Mode and Antenna Polarization:
T: Linear
V: Linear
U: TX A (usually digital)LHCP
TX B (usually analog) RHCP
L: Linear
S: Linear

Broadcast: PECHO-11
BBS: PECHO-12

Official Webpage: http://www.amsat.org/amsat-new/echo/CTNews.php

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=19
[12062011]
=====
CANX-1
Catalog Number: 27847
Launch Date: June 30, 2003

Status: Non-Operational

Downlink: 437.8800 MHz AFSK 1k2bps
[06052009]
=====
DTUSAT
Catalog Number: 27842
Launch Date: June 30, 2003

Status: Non-Operational

Current Mode: 2k4 AFSK Packet last reported

Downlink: 437.475MHz

Officail webpage: http://dtusat1.dtusat.dtu.dk/

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=101&retURL
=satellites/all_oscars.php
[02212009]
=====
AO-49 AATiS OSCAR-49 (SAFIR-M)
Catalog number: 27605
Launch Date: December 20, 2002

Status: Non-operational.

Uplink: 435.275 MHz 1200-baud AFSK
Downlink: 145.825 MHz 9600-baud FSK
(optional voice message)

Broadcast callsign: DP0AIS

Official webpage: http://amend.gmxhome.de
[01222007]
=====
MO-46 TIUNGSAT-1
Catalog number: 26548
Launch date: September 26, 2000

Status: Telemetry only

Uplinks: 145.850 MHz
145.925 MHz 9600-baud FSK
Downlink: 437.325 MHz

Broadcast callsign: MYSAT3-11
BBS: MYSAT3-12

TiungSat-1 is Malaysia's first micro-satellite and in addition to
commercial land and weather imaging payloads offers FM and FSK
Amateur Radio communication.

TiungSat-1, named after the mynah bird of Malaysia, was developed as
a collaborative effort between the Malaysian government and Surrey
Satellite Technology Ltd.
[03302009]
=====
NO-45 SAPPHIRE
Catalog number: 26932
Launch Date: September 30, 2001

Status: Non-Operational

Downlink: 437.095 MHz 1200 baud AX-25 AFSK
Uplink: 145.945 MHz UI Digipeater
Digi Callsign: KE6QMD

Everyone is welcome to use the digipeating/APRS features of Sapphire,
as per the user service agreement located at the following URL:
http://web.usna.navy.mil/~bruninga/pcsat/contract.txt
[03132005]
=====
SO-42 SAUDISAT-1B
Catalog number: 26549
Launch date: September 26, 2000

Status: Non-Operational

Downlink: 437.075 MHz

Broadcast Callsign: SASAT2-11
BBS: SASAT2-12

Further information is available at:
http://www.amsat.org/amsat/sats/n7hpr/so42.html
[01222007]
=====
SO-41 SAUDISAT-1A
Catalog number: 26545
Launch Date: September 26, 2000

Status: Non-Operational

Uplink: 145.850 MHz
Downlink: 436.775 MHz

Broadcast Callsign: SASAT1-11
BBS: SASAT1-12

Further information is available at:
http://www.amsat.org/amsat/sats/n7hpr/so41.html
[01222007]
=====
AO-40 AMSAT OSCAR 40
Catalog number: 26609
Launch Date: November 16, 2000

Status: Non-Operational

Uplinks

V-band: 145.840 - 145.990 MHz CW/LSB
U-band: 435.550 - 435.800 MHz CW/LSB
L1-band: 1269.250 - 1269.500 MHz CW/LSB
L2-band: 1268.325 - 1268.575 MHz CW/LSB

Downlinks

S2-band: 2401.225 - 2401.475 MHz CW/USB
K-band: 24048.010 - 24048.060 MHz CW/USB
Beacon: 2401.323 MHz
24048.035 MHz

P3-D Telemetry Beacons (IHU)

BEACON General Beacon(GB) Middle Beacon(MB) Engineering Beacon(EB)
2 m none 145.898 MHz none
70cm 435.438 MHz 435.588 MHz 435.838 MHz
13cm(1) 2400.188 MHz 2400.338 MHz 2400.588 MHz
13cm(2) 2401.173 MHz 2401.323 MHz 2401.573 MHz
3cm 10450.975 MHz 10451.125 MHz 10451.375 MHz
1.5cm 24047.885 MHz 24048.035 MHz 24048.285 MHz
[07162007]
=====
OO-38 OPAL
Catalog Number: 26063
Launch Date: January 27, 2000

Status: Non-Operational

Mode U TLM Beacon
Downlink: 437.1000 MHz 9600 FSK
[08132007]
=====
UO-36 UoSAT-12
Catalog number: 25693
Launch date: April 21, 1999

Status: Unknown

Uplink: 145.960 MHz (9600-baud FSK)
Downlinks: 437.025 MHz
437.400 MHz

Broadcast Callsign: UO121-11
BBS: UO121-12

The VK5HI viewer shareware for UO-36 is available on the AMSAT-NA web
site at the following URL:
ftp://ftp.amsat.org/amsat/software/win32/display/ccddsp97-119.zip
[01222007]
=====
SO-35 SUNSAT
Catalog Number: 25636
Launch date:February 23, 1999

Status: Non-Operational

Downlink: Mode B Repeater: 436.291 MHz
Mode J Digipeater: 436.250 MHz

Uplinks: Mode B Repeater: 145.825 MHz
Mode J Digipeater: 145.825 MHz
145.900 MHz

For more information of SUNSAT vist the satellite web site:
http://esl.ee.sun.ac.za/projects/sunsat/
[01222007]
=====
PO-34 PANSAT
Catalog number: 25520
Launch date: October 30, 1998

Status: Telemetry downloads only

Uplink/downlink: 436.500 MHz

Official Webpage: http://www.sp.nps.navy.mil/pansat/
[05092004]
=====
SO-33 SEDSAT-1
Catalog number: 25509
Launch date: October 24, 1998

Status: Semi-operational

Downlink: 437.910 MHz FM (9600-baud FSK)

The satellite is not currently available for uplink transmissions and
the image and transponder recovery efforts have been unsuccessful.

For more information on SedSat-1 visit the satellite web site:
http://seds.uah.edu/projects/sedsat/sedsat.htm
[09042006]
=====
GO-32 Gurwin TechSat-1B
Catalog number: 25397
Launch Date: July 10, 1998

Status: Non-Operational

Current Modes:
Telemetry : /u

Downlink: 435.225 MHz FM (9600-baud FSK)
435.325 Mhz - Not Available - temperature problems
Uplinks: 145.850 FM
145.890 FM
145.930 FM
1269.700 FM
1269.800 FM
1269.900 FM

Broadcast Callsign: 4XTECH-11
BBS Callsign: 4XTECH-12

More information of GO-32 can be found at:
http://asri.technion.ac.il/techsat/

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=14&retURL
=/satellites/status.php
[07172010]
=====
TO-31 TMSAT-1
Catalog number: 25396
Launch Date: July 10, 1998

Status: Non-operational

Uplink: 145.925 MHz 9600 baud FSK
Downlink: 436.925 MHz 9600 baud FSK

Broadcast callsign: TMSAT1-11
BBS: TMSAT1-12
[05012006]
=====
MO-30 UNAMSAT-2
Catalog Number: 24305
Launch Date: September 5, 1996

Status: Non-operational

Downlink: 435.1380 MHz AFSK 1200 BPS
Downlink: 435.2060 MHz AFSK 1200 BPS
Uplink: 145.8150 MHz AFSK 1200 BPS
Uplink: 145.8350 MHz AFSK 1200 BPS
Uplink: 145.8550 MHz AFSK 1200 BPS
Uplink: 145.8750 MHz AFSK 1200 BPS
[06042009]
=====
PO-28 POSAT-1
Catalog number: 22829

Launch Date: September 25, 1993

Status: Non-operational

Downlink: 429.950
Uplink: Not until handover back to Amatuer usage

Broadcast callsign: POSAT1-11
BBS callsign: POSAT1-12

AMSAT Webpage: http://www.amsat.org/amsat/sats/n7hpr/po28.html
POSAT-1 webpage:
http://www.ee.surrey.ac.uk/SSC/CSER/UOSAT/missions/posat1.html
[01012009]
=====
AO-27 AMRAD
Catalog number: 22825
Launch Date: September 26, 1993 0140z
Launch site: Kourou, French Guiana

Status: Recovery efforts in progress

Current Mode: V/u

Uplink: 145.850 MHz FM
Downlink: 436.797 MHz FM

Mode and Antenna Polarization:
V: Linear
U: Linear

Official Webpage: http://www.ao27.org
[12032012]
=====
IO-26 ITAMSAT
Catalog number: 22826
Launch Date: September 26, 1993 0140z

Status: PSK carrier only

Current Mode:

Uplinks: 145.875 MHz FM 1200-baud
145.900 MHz FM 1200-baud
145.925 MHz FM 1200-baud
145.950 MHz FM 1200-baud

Downlink: 435.808 MHz PSK

Broadcast Callsign: ITMSAT-11
BBS: ITMSAT-12

Official webpage: http://www.itamsat.org
AMSAT Webpage: http://www.amsat.org/amsat/sats/n7hpr/io26.html
[01212007]

=====
KO-25 KITSAT
Catalog number: 22828
Launch date: September 26, 1993

Status: Non-operational

Uplink: 145.980 MHz FM 9600-baud FSK
Downlink: 436.500 MHz FM

Broadcast Callsign: HL02-11
BBS: HL02-12
[05092004]
=====
AO-24 ARSENE
Catalog Number: 22654
Launch Date: May 13, 1993

Status: Non-operational

Uplink: 435.0625 MHz FM 1k2bps AFSK
435.1125 MHz FM 1k2bps AFSK
435.1375 MHz FM 1k2bps AFSK
Downlink: 145.9750 MHz FM 1k2bps AFSK
2446.5025 MHz FM 1k2bps AFSK

Beacon: 2446.4700 MHz CW

Broadcast callsign:
BBS:
[12162009]
=====
KO-23 KITSAT
Catalog number: 22077
Launch date: August 10, 1992

Status: Non-operational

Uplink: 145.900 MHz FM (9600-baud FSK)
Downlink: 435.170 MHz FM

Broadcast Callsign: HLO1-11
BBS: HLO1-12
[01222007]
=====
UO-22 UOSAT
Catalog number: 21575
Launch date: July 17, 1991

Status: Non-Operational

Uplink: 145.900 FM 9600-baud FSK
Downlink: 435.120 MHz FM

Broadcast Callsign: UOSAT5-11
BBS: UOSAT5-12
[01222007]
=====
AO-21 AMSAT-OSCAR 21
Catalog Number: 21087
Launch Date: January 29, 1991

Status: Non-Operational

Uplink: 435.041 MHz FM DSP
Downlink: 145.983 MHz FM DSP
[01222007]
=====
FO-20 JAS-1b
Catalog number: 20480
Launch Date: February 07, 1990

Status: Non-Operational

Beacons: 435.795 MHz CW
435.910 MHz AX25

Voice Transponder:
Uplink: 145.900 to 146.000 MHz CW/LSB
Downlink: 435.800 to 435.900 MHz CW/USB

Digital Transponder:
Uplinks: 145.850 MHz
145.870 MHz
145.890 MHz
145.910 MHz
Downlink: 435.910 MHz

More FO-20 info can be found at:
http://www.amsat.org/amsat/sats/n7hpr/fo20.html
[01152007]
=====
WO-18 WEBERSAT
Catalog Number: 20441
Launch Date: January 22, 1990

Status: Non-Operational

Downlink: 437.104 MHz SSB 1200 Baud PSK AX.25
[05012006]
=====
DO-17 Dove
Catalog Number: 20440
Launch Date: January 22, 1990

Status: Non-operational.

Downlink: 145.825 MHz FM 1200 Baud AFSK
Beacon: 2401.220 MHz

[05012006]
=====
AO-16 PACSAT
Catalog number: 20439
Launch Date: January 22, 1990

Status: non-operational

Current Mode: V/u

Uplink: 145.900 MHz FM 1200-baud Manchester FSK (reserved)
145.920 MHz FM VOICE
145.940 MHz FM 1200-baud Manchester FSK (reserved)
145.960 MHz FM 1200-baud Manchester FSK (reserved)

Downlink: 437.026 MHz USB VOICE
(1200-baud PSK - MBL Telemetry Only)

Mode-S Beacon: 2401.1428 MHz [NO FUTURE OPERATIONS PLANNED]

Mode and Antenna Polarization:
U: RC 437.050 MHz RHCP
PSK 437.026 MHz LHCP
V: Linear

Broadcast Callsign: PACSAT-11
BBS: PACSAT-12

AO-16 AMSAT Webpage: http://www.amsat.org/amsat/sats/n7hpr/ao16.html
[07242009]
=====
UO-15 UoSAT-4
Catalog Number: 20438
Launch Date: January 22, 1990

Status: Non-operational

Uplink: ?
Downlink: 435.1250MHz (?)
435.1200MHz (?)
[06042009]
=====
UO-14 UoSAT-3
Catalog number: 20437
Launch date: January 22, 1990

Status: Non-operational

Uplink: 145.975 MHz FM
Downlink: 435.070 MHz FM
[05092004]
=====
FO-12 Fuji-OSCAR 12
Catalog Number: 16909

Launch Date: August 12, 1986

Status: Non-Operational

Mode V/U (J) Linear Transponder (Inverting):
Uplink: 145.9000 - 146.0000 MHz SSB/CW
Downlink 435.8000 - 435.9000 MHz SSB/CW

Mode V/U (J) Packet:
Uplink: 145.8500 MHz MFSK 1200 BPS
Uplink: 145.8700 MHz MFSK 1200 BPS
Uplink: 145.8900 MHz MFSK 1200 BPS
Uplink: 145.9100 MHz MFSK 1200 BPS

Downlink 435.9100 MHz PSK 1200 BPS

Telemetry Beacon: 435.7950 MHz SSB/CW
[01152007]
=====
AO-10 OSCAR 10
Catalog number: 14129
Launch Date: June 16, 1983

Status: Non-operational

Uplink: 435.030 to 435.180 MHz CW/LSB
Downlink: 145.975 to 145.825 MHz CW/USB

Beacon: 145.810 MHz (unmodulated carrier)

W4SM has more information about the satellite at the following URL:
http://www.cstone.net/~w4sm/AO-10.html
[05092004]
=====
AO-8 AMSAT-OSCAR 8
Catalog Number: 10703
Launch Date: March 3, 1978

Status: Non-Operational

Mode V/U (J) Linear Transponder (Non-Inverting): Non-Operational
Uplink: 145.9000 - 146.0000 MHz SSB/CW
Downlink 435.1990 - 435.2000 MHz SSB/CW

Mode V/U (J) TLM Beacon: Non-Operational
Downlink 435.0950 MHz CW

Mode V/A (A) Linear Transponder (Non-Inverting): Non-Operational
Uplink: 145.8500 - 145.9000 MHz SSB/CW
Downlink 29.4000 - 29.5000 MHz SSB/CW

Mode V/A (A) TLM Beacon: Non-Operational
Downlink 29.4020 MHz CW
[01152007]
=====

AO-6 AMSAT-OSCAR 6
Catalog Number: 06236
Launch Date: October 15, 1972

Status: Non-Operational

Uplink: 145.9000 - 146.0000 MHz SSB/CW
Downlink: 29.4500 - 29.5500 MHz SSB/CW
Beacons: 29.450 MHz
435.100 MHz
[01312008]
=====
AO-5 Australis-OSCAR 5
Catalog Number: 04321
Launch Date: January 23, 1970

Status: Non-Operational

Telemetry Beacons: 144.0500 MHz CW
29.4500 MHz CW
[01152007]
=====
OSCAR III
Catalog Number: 01293
Launch Date: March 09, 1965

Status: Non-Operational

Uplink: 145.9750 - 146.0250 MHz SSB/CW
Downlink: 144.3250 - 144.3750 MHz SSB/CW
[01012007]
=====
RS-15 RADIO SPORT RS-15
Catalog number: 23439
Launch Date: December 26, 1994

Status: Non-operational

Uplink: 145.858 to 145.898 MHz CW/USB
Downlink: 29.354 to 29.394 MHz CW/USB

Beacon 1: 29.352 MHz (intermittent)
Beacon 2: 29.398 MHz

SSB meeting frequency: 29.380 MHz (unofficial)
[06202004]
=====
RS-13 RADIO SPORT RS-13
Catalog number: 21089
Launch date: February 5, 1991

Status: Non-operational

Uplink: 21.260 to 21.300 MHz CW/USB
Downlink: 145.860 to 145.900 MHz CW/USB

Beacon: 145.860 MHz

Robot: 145.908 MHz
[05232004]
=====
RS-12 RADIO SPORT RS-12
Catalog number: 21089
Launch date: February 5, 1991

Status: Non-operational

Uplink: 21.210 to 21.250 MHz CW/USB
Downlink: 29.410 to 29.450 MHz CW/USB

Beacon: 29.408 MHz

Robot: 29.454 MHz
[05232004]
NNNN
/EX

ANS is released worldwide via the AMSAT ANS e-mail reflector and a
live
radiocast on the AMSAT-NA 20-meter net held each Sunday on 14.282 MHz.
Pre-net operations start at 18:00 UTC, with current ANS bulletins
trans-
mitted to the eastern U.S. at 19:00 UTC and to the western U.S. at
19:30
UTC.

Information on AMSAT-NA is available at the following URL:
http://www.amsat.org

Mailing address:
AMSAT-NA
850 Sligo Avenue, Suite 600
Silver Spring, Maryland 20910-4703

Voice: 301-589-6062
888-322-6728
FAX: 301-608-3410

Currently, AMSAT-NA supports the following (free) mailing lists:

* AMSAT News Service (ANS)
* General satellite discussion (AMSAT-BB)
* Orbit data (KEPS)
* Manned space missions (SAREX)
* District of Columbia area (AMSAT-DC)
* New England area (AMSAT-NE)
* AMSAT Educational Liaison mailing list (AMSAT-EDU)
* AMSAT K-12 Educational Liaison mailing list (AMSAT-K12)

A daily digest version is available for each list.

To subscribe, or for more list information, visit the following URL:
http://www.amsat.org/mailman/listinfo/ans

In addition to regular membership, AMSAT-NA offers membership in the President's Club. Members of the President's Club, as sustaining donors to AMSAT Project Funds, will be eligible to receive additional benefits. Application forms are available from the AMSAT-NA Office.

This week's Weekly Satellite Report Editor is James French, W8ISS.

ANS is always dedicated to past ANS editor 'BJ' Arts, WT0N, and to the memory of longtime AMSAT supporters Werner Haas, DJ5KQ, Dennis Kitchen, G0FCL and John Branegan GM4IHJ.

Please send any amateur satellite news or reports to: ans-editor{at} amsat.org
NNNN
/EX

29. ANS-048 AMSAT News Service Weekly Bulletins

Newsgroup: rec.radio.amateur.space
Date: 2013-02-17 02:19:40 UTC
From: JoAnne Maenpaa <k9jkm@comcast.net>
Message-ID: <000601ce0cb4$f0037c90$d00a75b0$@net>
Source record: 6
Cross-posted to: rec.radio.amateur.space,rec.radio.info

AMSAT NEWS SERVICE
ANS-048

ANS is a free, weekly, news and information service of AMSAT North America, The Radio Amateur Satellite Corporation. ANS reports on the activities of a worldwide group of Amateur Radio operators who share an active interest in designing, building, launching and communicating through analog and digital Amateur Radio satellites.

Please send any amateur satellite news or reports to:
ans-editor at amsat.org

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SB SAT @ AMSAT $ANS-048.01
ANS-048 AMSAT News Service Weekly Bulletins

AMSAT News Service Bulletin 048.01
>From AMSAT HQ SILVER SPRING, MD.
February 17, 2013
To All RADIO AMATEURS
BID: $ANS-048.01

Monday February 18 OSCAR 7 Close Approach With Orbital Debris

According to orbital predictions from United States Joint Space Operations Center (JSpOC) the OSCAR 7 amateur radio satellite is heading for a close call with orbital space debris on Monday, February 18 at 22:06 UTC.

Please post your AO-7 reception reports after this event via
amsat-bb@amsat.org and also via the Live OSCAR Satellite Status
Page at: http://oscar.dcarr.org/

The near-miss is predicted with the following parameters:

Primary Object: OSCAR 7 (SCC# 7530)
Secondary Object: SCC# 18116
Time of Closest Approach: 18 FEB 2013 22:06 UTC

Overall miss distance: 57 meters
Radial (dU) miss distance: 25 meters
In-Track (dV) miss distance: -25 meters
Cross-track (dW) miss distance: 46 meters

Primary Radial Error (U): 11 meters
Primary In-Track Error (U): 57 meters
Primary Cross-track Error (U): 6 meters

Secondary Radial Error (U): 12 meters
Secondary In-Track Error (U): 55 meters
Secondary Cross-Track Error (U): 11 meters

[ANS thanks Drew Glasbrenner, KO4MA and the United States Joint
Space Operations Center for the above information]

UK Space Mission - STRaND-1 Plans for Launch on February 25

A UK mission, jointly developed by the University of Surrey's Sur-
rey Space Centre (SSC) and Surrey Satellite Technology Limited
(SSTL), to send the world's first smartphone satellite into orbit,
is due to launch on February 25 from India on PSLV-C20. This launch
will also carry the ocean study spacecraft SARAL as well as satel-
lites carrying amateur radio payloads.

STRaND-1 will be the first UK CubeSat to be launched and has been
developed by talented space engineers and researchers at Surrey with
the majority of the design and developmental work being carried out
in their spare time. The build and test phase of the project has
been completed in just three months. At the heart of STRaND-1 is a
Google Nexus One smartphone with an Android operating system.

During the first phase of the mission, STRaND-1 will use a number of
experimental 'Apps' to collect data while a high-speed linux-based
CubeSat computer developed by SSC takes care of the satellite. During
phase two, the STRaND-1 team plan to switch the satellite's in-orbit
operations to the smartphone, testing the capabilities of a number of
standard smartphone components for a space environment. The satellite
will be commissioned and operated from the Surrey Space Centre's
ground station at the University of Surrey.

Being the first smartphone satellite in orbit is just one of many
'firsts' that STRaND-1 is hoping to achieve. It will also fly inno-

vative new technologies such as a 'WARP DRiVE' (Water Alcohol Resist-
ojet Propulsion Deorbit Re-entry Velocity Experiment) and electric
Pulsed Plasma Thrusters (PPTs); both 'firsts' to fly on a nanosatel-
lite. It is also flying a 3D printed part - believed to be the first
to fly in space!

A software-based speech synthesiser will be included to pay homage
to the UOSAT family of satellites OSCAR 9 and 11, that were launched
in 1980 & 1982. There will be an amateur radio AX.25 packet radio
downlink on 437.575 MHz using data rates of 9k6 or 19k2 bps.

On-line articles of the STRaND-1 mission can be found at:
http://www.amsat-uk.org/
http://spaceref.com/news/viewsr.html?pidC314

[ANS thanks AMSAT-UK and Spaceref.com for the above information]

Additional Satellites on India's PSLV-C20 Launch on February 25

The STRaND-1 smart phone based CubeSat will share the ride to space
with additional satellites:

+ SARAL (Satellite with ARgos and ALtiKa) ocean study spacecraft
is a joint ISRO • CNES mission aimed at sun-synchronous orbit
with descending node at 18:00 local time, and altitude around
800 km. Ka-band radar altimeter operating at 35.75 GHz.
http://smsc.cnes.fr/SARAL/

+ NEOSSat (Near Earth Object Surveillance Satellite) • space tele-
scope that will split its time 50/50 to search for near-Earth
asteroids that could potentially impact the Earth, and search
for satellites and space debris in orbit around the Earth. Re-
search project for Defence Research and Development Canada (DRDC).
http://www.asc-csa.gc.ca/eng/satellites/neossat/

+ Sapphire • Canadian Department of National Defence first dedicat-
ed military satellite, designed to provide tracking data on space
objects at orbit altitudes between 6,000km and 40,000km, data will
be shared with the US Space Surveillance Network.

http://www.sstl.co.uk/Missions/Sapphire/Sapphire/Sapphire•The-Mission

+ CanX-3a, BRITE (BRIght-star Target Explorer) • small satellite de-
signed to make photometric observations of bright stars in order
to study their variability. Built by the University of Toronto
Institute for Aerospace Studies Space Flight Laboratory, and oper-
ated by the Universit• de Montr•al and University of Vienna.
http://www.utias-sfl.net/nanosatellites/CanX3/

+ TUGSat-1 (Technische Universit•t Graz Satellit), BRITE • Austria
•

small satellite from Austria designed to make photometric observations of bright stars in order to study their variability. The IARU Amateur Satellite Frequency Coordination status pages note that it will be using S-Band for telemetry downlinks and will have a 145 MHz CW beacon.
http://www.tugsat.tugraz.at/

+ AAUSat 3 – 1U cubesat developed and constructed by students from Department of Electronic Systems at Aalborg University Denmark, testbed for a pair of AIS receivers concentrating on the area around Greenland in cooperation with the Danish Maritime Authority. The IARU Amateur Radio coordinated frequency is 437.425 MHz and the radio link will use Viterbi and Reed Solomon encoding.
http://www.space.aau.dk/aausat3/

[ANS thanks AMSAT-UK and the Zarya Space Calendar for the above information - http://www.zarya.info/Calendar.php]

Amateur Satellite Allocations on the Agenda at Vienna

In the coming months meetings will take place in both IARU Region 1 and Region 2 to discuss HF and VHF bandplans.

The IARU Region 1 2013 Interim Meeting in Vienna April 19-21 will be discussing two proposals relating to the Amateur-Satellite Service:

+ VIE13_C4_02 - Amendment to the 28 MHz Bandplan in relation to the Amateur Satellite Service. This proposes the removal of the downlink only restriction on the 29.300-29.510 MHz satellite segment. See http://tinyurl.com/vienna2013-10M (http://uska.ch/)

+ VIE13_C5_03 - Increased Amateur-Satellite Service 144 MHz Usage. This proposes the introduction of a new satellite downlink band for CW/SSB transponders at 144.000-144.035 MHz:
See http://tinyurl.com/vienna2013-2M (http://uska.ch/)

A report on the ARRL website has requested input for the IARU Region 2 conference will be held later this year in Mexico.. At this time it is not known if satellite allocations will be raised at the meeting in Region 2. The ARRL item is posted at:
http://www.arrl.org/news/iaru-region-2-seeks-input-on-hf-band-plan
This page includes instructions to post comments via e-mail to the ARRL as the IARU Member Society for the United States.

[ANS thanks Trevor, M5AKA and the ARRL for the above information]

May 2013 Launch for TURKSAT-3USAT Linear Transponder Cubesat

TAMSAT reports the TURKSAT-3USAT, the first communication nanosatellite mission of ITU, Istanbul Technical University, Istanbul, Turkey is expected to launch in the May 2013 timeframe aboard China's Chang Zheng-2D rocket. Also aboard this launch will be Ecuador's NEE 01 Pegaso 1U cubesat.

TURKSAT-3USAT is a three unit CubeSat developed to provide SSB/CW communications in a 680 km Low Earth Orbit. It will fly a V/U linear transponder developed by TAMSAT, the Turkish Amateur Satellite Technologies Organisation.

+ Uplink center frequency 145.965 MHz
(145.940-145.990 MHz bandwidth)
Receive sensitivity -120 dBm

+ Downlink center frequency 435.225 MHz
(435.200-435.250 MHz bandwidth)
Output power 30 dBm (1W)

+ CW beacon on 437.225 MHz

TurkSat features a 3U CubeSat structure of ISIS (Innovative Solutions In Space BV), Delft, The Netherlands, with a size of 10 cm x 10 cm x 30 cm. The total mass of the nanosatellite is ~ 4 kg. The computer is a Pumpkin OBC. A camera and an attitude determination and control subsystem is part of the mission.

The satellite has a de-orbiting system which will make it re-enter the atmosphere following completion of its life time. The deorbiting system consists of a lightweight thin membrane when deployed is expected to deorbit the nanosatellite within 25 years.

Additional information can be accessed on-line at:
http://www.tamsat.org.tr/tr/turksat-3usat-is-almost-ready/
http://www.uk.amsat.org/?p670

[ANS thanks TAMSAT for the above information]

New Cuban Satellite Operators Now On-the-Air

Cuba's new amateur satellite group, Grupo de Radioaficionados para Operaciones Satelitales, or GROS says this week two Cuban amateurs have made their first satellite contact via SO-50. GROS Coordinator Raydel, CM2ESP reported on the success of Pavel, CO7WT and Jose, CM2XN, "This may look simple, but for a Cuban Ham this is a great success which follows many weeks of antenna building, equipment adjustments and learning, these two hams enjoyed their first success-contact on an FM transponder satellite. They know there is a lot more of operating skills to learn and they are very happy to do so."

Grupo de Radioaficionados para Operaciones Satelitales, loosely interpreted as "Ham Radio Group for Satellite Operations", says this reflects on the successful mentorship to get Cuban radio amateurs

on the satellites. Few Cuban hams have the required radio gear and require a degree of inventiveness and perseverance to put their technical skills to the test to acheive success.

The intial success of this small group of Cuban hams hopes to inspire and train more hams to build their satellite stations, get on the air and activate new grids.

GROS hosts a VHF net in the Havana Province twice monthly on Friday. They are working on creating a monthly HF satellite net in the near future. GROS continues to work with Cuban National Amateur Radio Federation, F.R.C., the Federaci&#65533;n de Radioaficionados de Cuba, on the logistical arrangements to hold the first national meeting of Cuban amateur satellite operators.

Raydel invites questions and comments to the group to be sent to any members of the Coordination Board using these contacts:

+ CO6CBF, Hector, Vice-Coordinator (co6cbf@frcuba.co.cu)
+ CO7WT, Pavel, Technical Vice-Coordinator (pavel@conas.cu)
+ CM2ESP, Raydel, Coordinator (cm2esp@frcuba.co.cu)

A video of Hector, CO6CBF, at the 2012 AMSAT Space Symposium talking about how a Cuban Ham operates via satellite can be found on YouTube: http://www.youtube.com/watch?v&#65533;cmIubIBQ4.

[ANS thanks GROS Coordinator Raydel, CM2ESP for the above information]

NASA Long-Distance Google+ Hangout to Connect with Space Station

In a first for the agency, NASA will host a Google+ Hangout live with the International Space Station between 11 a.m. to noon EST on February 22. Google+ Hangouts allow people to chat face-to-face while thousands more can tune in to watch the conversation live on Google+.

Although the deadline to submit video questions was February 12 you will be able to watch replies to selected questions. Several video questions will be selected and answered by astronauts on the space station and on the ground. Additionally, NASA will ask real-time questions submitted by followers on Google+, Twitter, and Facebook.

To join the hangout, and for updates and opportunities to participate in upcoming hangouts, visit NASA's Google+ page: https://plus.google.com/+NASA/posts

Information on this Hangout and future sessions can be found at: http://www.nasa.gov/connect/hangout.html

[ANS thanks NASA for the above information]

JAMSAT 2013 Symposium in Tokyo - March 9-10

JAMSAT announces their 2013 Symposium to be held in Tokyo on March 9 to March 10. The Symposium will be held at the National Museum of Emerging Science and Innovation (Miraikan) - 7F Conference Room CR2. All amateur radio satellite operators are welcome to attend.

The Symposium schdule will be:

March 9
+ 14:30 - 17:00 Papers and Technical Presentations
+ 17:30 - 19:30 Dinner Party

March 10
+ 10:00 - 13:00 Papers and Technical Presentations

The list of technical topics includes:
+ Problem of 1.2GHz Band License
+ Interference with QZSS Satellite
+ FitSAT Report
+ JAMSAT Activities
+ Progress in Transponder and 38.4Kbps Transmitter
+ Noise Environment at 2.4GHz Band
+ Progress in Nippon University Cubesat "NEXUS"
+ Introduction to AMSAT-NA FOX-Project
+ SDR and Satellite Communication

Openings remain available for the addition of last minute presentations on topics pertaining to amateur radio in space. If you are interested in making a presentation please contact madoguchi@jamsat.or.jp or ja3gep@jamsat.or.jp

Information on the Museum meeting location can be accessed on-line: http://www.miraikan.jst.go.jp/en/

[ANS thanks Mikio Mouri, JA3GEP of JAMSAT for the above information]

ARISS School Contacts This Week

United Kingdom

An International Space Station school contact was successfully completed with participants at Breadalbane Academy, Aberfeldy, United Kingdom on February 12. The contact was made with a telebridge between NA1SS and W6SRJ.

Breadalbane Academy is a rural school serving Highland Perthshire in the heart of Scotland. The school has 700 pupils coming from Aberfeldy, Pitlochry, Rannoch and Dunkeld. The students are very interested in all aspects of the space program.

Manitoba, Canada

An International Space Station school contact was successfully completed with participants at Chief Peguis Junior High School, Winnipeg, Manitoba, Canada on February 13. The contact was made with a telebridge between NA1SS and VK5ZAI.

Chief Peguis Junior High is a grade 7-9 school with a population of about 550 students and staff. In April of 2011 Chris Hadfield made a personal appearance at the school to talk to the students. Those grade 7 students at that time are currently grade 9 students and they remember his visit. They feel they already have a personal connection with him.

This coming week International Space Station school contacts are planned on Tuesday and Friday with:

+ The 4th Dimotiko Scholeio Chaidariou, Chaidari (near Athens), Greece. This will be a direct contact via J41ISS on Tuesday, February 19 at 12:30 UTC.

+ The Uplands Elementary School, Penticton, BC, Canada, with a telebridge via IK1SLD on Friday, February 22 at 19:36 UTC.

ARISS is requesting listener reports for these contact. Due to issues with the Kenwood radio that are not fully understood at present, the Ericsson radio is going to be used for this contact. ARISS thanks everyone in advance for their assistance.
If you are in range the downlink is 145.800 MHz.

[ANS thanks ARISS for the above information]

Israeli Students Speak with Canadian Astronaut in Space

JERUSALEM (http://www.algemeiner.com/) - Ninth grade physics students at Hebrew University Secondary School (Leyada) in Jerusalem spoke with Canadian astronaut Chris Hadfield, as he orbited the Earth aboard the International Space Station (ISS) on Sunday, February 3.

The Israeli high school students were the recent winners of the Ilan Ramon Space Olympics hosted each year by the Ilan Ramon Foundation, established in honor of Israel's first astronaut, Ilan Ramon. Ramon perished in the Space Shuttle Columbia disaster with six other American crew members, when the shuttle disintegrated reentering to earth 10 years ago.

Out of the 2,000 students from across Israel who participated in the Space Olympics, Leyada's 19-member team won first prize, for building a space platform to repair satellites and constructing a guesthouse in space.

The first prize granted the winning students a chance to speak with Canadian astronaut Chris Hadfield, who recently spoke with public school students in Ontario. According to Leyada's Reuben Tel-Dan, the proud physics teacher who oversaw the project, "I believe that Leyada is the first school in Israel to communicate with space." The special event is part of NASA's Teaching From Space Program, which gives schoolchildren the chance to ask questions and hear answers from astronauts living aboard the space station via Amateur Radio on the International Space Station (ARISS). The contact is performed using the Amateur Radio telebridge network, a world-wide network of amateur radio ground stations that allow students to contact the space station, as it flies more than 200 miles above Earth.

Leyada students came prepared with a list of 20 questions for Hadfield, from everything about what life in space is like to homesickness and boredom. One of the ninth grade students, Ron, asked Hadfield where he slept more comfortably - on Earth or in the space station. Hadfield laughed, replying that "sleeping in the space station is comfortable, but I sleep better at home with my wife." Another student, Yoni wanted to know how astronauts distinguish between day and night in the space station. Hadfield explained that there were 16 sunrises a day, but the crew uses an alarm clock for their sleep routines.

Along with the physics team, over 200 Leyada students listened carefully to the audio conversation which took place at 11 am in the morning.

Although the weak signals cut the fascinating conversation short, for Ya'arit Segal, one of the student leaders of the project, the prize was worth the hours that she and her team spent on the project for the past three months. The ninth grader described many sleepless nights that she her teammates experienced creating their successful space project. "We spent days and nights working on our project and the process had a huge impact on us," she told Tazpit News Agency.

"I don't know if I'll be an astronaut someday," concedes Segal. "But it would be so interesting to conduct experiments in space and learn how to work together with a crew." Leyada's principal, Dr. Gilead Amir, was especially impressed with the students' initiative. "Today was a great example for all of us, both students and teachers - in learning how school projects can directly impact our lives. Sometimes what we do at school can even lead to historical moments."

[ANS thanks NASA Teaching From Space and www.algemeiner.com for the above information]

Changes Announced at Space-Track Website to Access Tracking Data

This week the Space-Track website published the following memo to the satellite community who use their site to access the latest

Keplerian Elements for tracking:

We are pleased to announce that we will upgrade the current http://www.Space-Track.org on Wednesday, 20 February 2013 at 12:00 PST to add the look and functionality that matches what is now on https://beta.space-track.org. The bulk file downloads from our current Space-Track site will continue to be available to scripters for a limited time after the upgrade using established URLs.

This upgrade will vastly improve how the Space-Track User community interacts with orbital element sets, the satellite catalog and conjunction data. With a robust Representational State Transfer (RESTful) Application Programming Interface (API), scripters will be able to get the latest data available, customized for their purposes.

Here are just a few of the new features that will become part of the upgraded www.Space-Track.org:

+ A streamlined and intuitive user interface that is easier to navigate and allows simple searches.

+ A robust help and documentation section - "Favorites" lists to identify logical groupings of catalog objects that Users can monitor via the web interface or with the site's API.

If you have production scripts that currently use beta.space-track.org, we recommend that you change your scripts to point at www.Space-Track.org on or after 20 February 2013.

If you have scripts that screen-scrape or download text/zip files from the current yellow-colored legacy www.Space-Track.org, they will continue to perform correctly for a few months, but we recommend that you quickly transition your scripts to take advantage of the new API. Documentation is available under "Help" to assist you, as well as the API query builder tool on the upgraded site.

We have also started sharing information about Space-Track's new features on tumblr, facebook and twitter, so please engage us on your favorite social media platform.

Our sites are http://space-track.tumblr.com,
http://www.facebook.com/SpaceTrack, and
http://www.twitter.com/SpaceTrackOrg

We understand that any significant upgrade has the potential to cause frustration for our user community and we apologize if this creates any adjustment problems for you. For help or clarification, please email us at admin@space-track.org.

Thank you,
The www.Space-Track.org Team

[ANS thanks Space-Track.org for the above information]

Satellite Shorts From All Over

+ Effective Monday, February 18 AMSAT-UK Change of Domain - the AMSAT-UK website will be moving to a new URL of: http://www.amsat-uk.org/

+ AMSAT has received the sad news of the passing of John Heath, G7HIA on February 15. John is remembered for his passion pas-sion for satellites and the cosmos, his patience in explaining and teaching others, his companionship and friendship, and esta-blishing and improving contacts with Russian satellite operators. See: http://www.amsat-uk.org/ (Andy, G0FSJ and Trevor, M5AKA)

+ Expedition 34 Flight Engineer Chris Hadfield of the Canadian Space Agency (CSA) speaks with Canadian-born actor William Shatner, the original Captain Kirk on the "Star Trek" television series on this YouTube video: http://www.youtube.com/watch?v=ro4zkw-LA

+ Enjoy a HD video, made by Sylvain Draux F0FVK, featuring the ama-teur radio satellite Fuji-OSCAR-29 (JAS-2). The video was shown at the Amateur Radio Fair held in Pordenone, Italy on November 17-18, 2012: http://www.uk.amsat.org/?p592

+ Doug, VK3UM reports that his EME Calculator Software - EMECalc Ver 9.00 has been released. Enhancements include expansion of the Yagi Data base with the VE7BQH yagi comparison tables allow-ing selections of over 490 antennas. Additional features include Beam Fill Calculations and an updated EME Planner Ver 1.78. The software can be found at: http://www.vk3um.com

+ The Gateway to Astronaut Photography of Earth hosts the best and most complete online collection of astronaut photographs of the Earth at: http://eol.jsc.nasa.gov/

+ Michael, HB9WDF is reported to be active as FM/HB9WDF from Mar-tinique between February 11-21. Activity will be holiday style on the satellites AO-7, FO-29, VO-52, SO-50 and others if they are active, and the HF bands on PSK-31 and some SSB. QSL via home calls. (Ohio/Penn DX Bulletin No. 1099) and (DX Newsletter DXNL 1819 - Feb 13, 2013)

+ A video of the West Palm Beach Amateur Radio Group hosting the largest ever ARISS contact at the South Florida Science Museum has been posted at: http://www.youtube.com/watch?feature=player_embedded&v=cGLKSvBnQ This contact had a live audience of hundreds in the Museum plus a live TV feed to the entire county school system of about 180,000 students and 12,000 teachers. Plus a live audience on The Educa-

tion Channel of another 25,000 in private and home schools, plus live broadcast on the PBS station with another 15,000 viewers and live feed on 2 Comcast Cable TV channels with another 30,000 viewers. It was also streamed live on the Internet. (Southgate.org)

+ The Winter 2013 CQ VHF Magazine has several articles of interest to amateur satellite operators:
o Transatlantic Balloon Flight 2012 - CNSP 18 - K6RPT-12
o K6RPT-12 Recovery Effort
o A Panadaptor for FT-817 using the FUNCube Dongle
o Raspberry Pi in the Sky
o CQ Satellite and 6 Meter WAZ Award Update
o Satellites Column by AMSAT's Keith Pugh, W5IU

[ANS thanks everyone for the above information]

/EX

In addition to regular membership, AMSAT offers membership in the President's Club. Members of the President's Club, as sustaining donors to AMSAT Project Funds, will be eligible to receive additional benefits. Application forms are available from the AMSAT Office.

Primary and secondary school students are eligible for membership at one-half the standard yearly rate. Post-secondary school students enrolled in at least half time status shall be eligible for the student rate for a maximum of 6 post-secondary years in this status. Contact Martha at the AMSAT Office for additional student membership information. And with that, please keep in mind a team of astronomers from Johns Hopkins University in their paper, "The 2dF Galaxy Redshift Survey: constraints on cosmic star-formation history from the cosmic spectrum", reported that their survey of the color of all light in the universe added up to a slightly beige white they named 'Cosmic Latte'. The survey included more than 200,000 galaxies, and measured the spectral range of the light from a large volume of the universe. The hexadecimal RGB value for Cosmic Latte is #FFF8E7. (Credit: http://www.oddee.com/item_63950.aspx#lrmr9I6M5Glrh4rD.99)

73,
This week's ANS Editor,
JoAnne Maenpaa, K9JKM

30. Weekly Highlights of Solar and Geomagnetic Activity, 11 - 17 February 2013

Newsgroup: rec.radio.amateur.space
Date: 2013-02-18 16:30:06 UTC
From: SWPC.Webmaster@noaa.gov
Message-ID: <20130218163002.235CC33C8C@panix2.panix.com>
Source record: 7
Cross-posted to: rec.radio.amateur.misc,rec.radio.amateur.dx,rec.radio.amateur.space,rec.radio.shortwave,rec.radio.info

```
:Product: Weekly Highlights and Forecasts
:Issued: 2013 Feb 18 0317 UTC
# Prepared by the US Dept. of Commerce, NOAA, Space Weather Prediction Center
# Product description and SWPC contact on the Web
# http://www.swpc.noaa.gov/weekly.html
#
# Weekly Highlights and Forecasts
#
Highlights of Solar and Geomagnetic Activity
11 - 17 February 2013

Solar activity was moderate. The largest flare of the period was a
M1/Sf with an associated Tenflare (340 sfu) radio burst from Region
1675 (N12, L=37, class/area Cso/050 on 17 February) at 17/1550 UTC.
The largest and most magnetically complex region of the period was
Region 1670 (N17, L166, class/area Dai/170 on 12 February). It
managed to produce two C-class flares before finally rotating off
the west limb on 16 February. Two filament eruptions occurred near
the southwest quadrant during the period. The first, a 7-degree long
filament located near S26W63, erupted beginning at approximately
12/2200 UTC. The second, a 10-degree long filament located near
S29W48, erupted at approximately 13/0300 UTC. It was later
determined that neither coronal mass ejection (CME) associated with
these filaments had a substantial Earthward trajectory. Several
other non-Earth directed CMEs were observed throughout the period as
well. However, late in the period a NE limb event showed a potential
Earth-directed CME. The ejecta was shown to be moving slowly
(approximately 300-400 km/s) using the plane-of-sky estimate but is
anticipated to be caught up in a coronal hole high speed stream (CH
HSS) and be nearly imperceptible as it passes.

No proton events were observed at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit was at
normal to moderate levels.

Geomagnetic field activity was quiet to unsettled with a couple of
isolated active periods. The first was on 13 February from
21000-2400 UTC due to prolonged periods of sustained negative Bz.
The second occurred on 16 February from 1500-1800 UTC due to the
passage of a weak transient CME.

Forecast of Solar and Geomagnetic Activity
18 February - 16 March 2013
```

Solar activity is expected to be very low to low.

No proton events are expected at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit is expected to be at normal to moderate levels from 18-23 February in response to negative polarity CH HSS from CH95 and CH96, and again from 1-2 March due to a recurrent negative polarity CH HSS.

Geomagnetic field activity is expected to be predominantly quiet to unsettled with a slight chance for isolated active periods due to the effects of the negative polarity CHs mentioned previously.

31. WSR-056 AMSAT Weekly Satellite Report

Newsgroup: rec.radio.amateur.space
Date: 2013-02-24 02:12:12 UTC
From: JoAnne Maenpaa <k9jkm@comcast.net>
Message-ID: <001801ce1234$054aca70$0fe05f50$@net>
Source record: 8
Cross-posted to: rec.radio.amateur.space,rec.radio.info

```
This report is organized into three (3) parts.
Part 1 (S1) - operational analog amateur satellites
Part 2 (S2) - operational digital amateur satellites
Part 3 (S3) - non - operational satellites

SB SAT @ AMSAT W8ISS $WSR-056.S1
WSR 056 Part 1 02/25/2013

AMSAT NEWS SERVICE BULLETIN 056.S1
FROM AMSAT HQ SILVER SPRING, MD, February 25, 2013
TO ALL RADIO AMATEURS
BID: $WSR-056.S1

PW-Sat
Catalog Number: 38083
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: On Orbit

Uplink: 435.020 MHz FM
Downlink: 145.900 MHz DSB

Beacon:

Callsign:

URL:

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=132
[02112013]
=====
DO-64 Delfi-C3
Catalog number: 32789
Launch Date: April 28, 2008 0354z
Launch site: Satish Dhawan Space Centre, India

Status: Operational
Current Mode: Science Mode - Beacon ONLY

Telemetry: 145.870 MHz

Downlink: 145.880 to 145.920 MHz
Uplink: 435.530 to 435.570 MHz

Delfi-C3 web page: http://www.delfic3.nl/
```

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=68
[02112013]
=====
VO-52 HAMSAT
Catalog number: 28650
Launch Date: May 05, 2005 0444z
Launch site: Satish Dhawan Space Centre, India

Status: Operational
Current Mode: U/v - Dutch Transponder

Frequencies:
Indian Transponder:
Uplink: 435.220 to 435.280 MHz LSB/CW
Downlink: 145.930 to 145.870 MHz USB/CW

Dutch Transponder:
Uplink: 435.225 to 435.275 MHz LSB/CW
Downlink: 145.925 to 145.875 MHz USB/CW

Indian Beacon: 145.9360 MHZ CW
Dutch Beacon: 145.860 MHz 12WPM with CW message

Mode and Antenna Polarization:
V: LHCP
U: RHCP

Official Webpage: http://www.amsatindia.org/hamsat.htm

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=30

To know what transponder is switched on please listen for the beacon
that is active. Each transponder has a different beacon.
[02112013]
=====
SO-50 SAUDISAT-1C
Catalog number: 27607
Launch date: December 20, 2002 1700z
Launch site: Baikonur, Kazakhstan

Status: Operational

Current Mode: V/u

Uplink: 145.850 MHz FM - 67.0 Hz PL tone
Downlink: 436.795 MHz

Mode and Antenna Polarization:
V: Linear
U: Linear

Official Webpage: http://saudisat.kacst.edu.sa/index.shtml
(not up and running currently)

To switch the transmitter on, you need to send a CTCSS tone of 74.4
Hz. The order of operation is thus: (allow for Doppler as necessary):
1) Transmit on 145.850 MHz with a tone of 74.4 Hz to arm the 10 minute
timer on board the spacecraft.
2) Now transmit on 145.850 MHz (FM Voice) using 67.0 Hz to PT the re-
peater on and off within the 10 Minute window.
3) Sending the 74.4 tone again within the 10 minute window will reset
the 10 minute timer.
[02112013]
=====
FO-29 JAS-2
Catalog number: 24278
Launch Date: August 17, 1996

Status: Operational
Current Mode: V/u (Mode JA)

Voice/CW (Mode JA)
Uplink: 145.90 to 146.00 MHz CW/LSB
Downlink: 435.80 to 435.90 MHz CW/USB
Beacon: 435.795 MHz

Digital Mode JD
Uplinks: 145.850 MHz FM
145.870 MHz FM
145.910 MHz FM
Downlink: 435.910 MHz 1200-baud BPSK or 9600-baud FSK
Callsign: 8J1JCS
Digitalker: 435.910 MHz

Mode and Antenna Polarization:
V: RHCP
U: RHCP

For current operational schedule for FO-29:
http://www.ne.jp/asahi/m-arai/gkz/satinfo/fo29e.htm

JARL English webpage:
http://www.jarl.or.jp/English/5_Fuji/ejasmenu.htm

AMSAT-NA Webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID
=5&retURL=/satellites/status.php

Mineo Wakita, JE9PEL, has created a simple decoder program for FO29's
CW telemetry downlink: http://www.ne.jp/asahi/hamradio/je9pel/
fo29cwts.htm
[02112013]
=====
AO-7 AMSAT OSCAR 7
Catalog number: 07530
Launch Date: November 15, 1974
Launch site: Vandenberg AFB, California, USA

Status: Operational

Current Mode: Alternating between Mode A and B every 24 hours

Uplink: 145.850 to 145.950 MHz CW/USB Mode A
432.125 to 432.175 MHz CW/LSB Mode B
Downlink: 29.400 to 29.500 MHz CW/USB Mode A (1W PEP)
145.975 to 145.925 MHz CW/USB Mode B (8W PEP)
145.975 to 145.925 MHz CW/USB Mode C (2W PEP)
Beacons: 29.502 MHz CW
145.972 MHz CW
435.100 MHz CW
2304.100 MHz CW

Official Webpage:
http://www.amsat.org/amsat-new/satellites/sat_summary/ao7.php
[02112013]
=====
INTERNATIONAL SPACE STATION (ISS) - ARISS
Catalog number: 25544
Launch date: November 20, 1998 0640z (ZARYA module)
Launch sites: Baikonur, Kazakhstan
Kourou, French Guiana
Uchinoura Space Center, Japan
Kennedy Space Center, Titusville, Florida, USA

Status: Operational

Current Active Modes: FM Repeater - OFF
Voice - V/v
BBS - V/v
2m APRS - V/v
2m Digi - V/v
70cm APRS - ?
70cm Digi - ?
SSTV - V/v

Expedition 34 Crew (November 2012 - March 2013):
Commander: Kevin Ford KF5GPP
Flight Engineer: Oleg Novitskiy
Flight Engineer: Evgeny Tarelkin
Flight Engineer: Roman Romanenko
Flight Engineer: Chris Hadfield KC5RNJ/VA3OOG
Flight Engineer: Tom Marshburn KE5HOC

Available Modes and Frequencies:
Digital/APRS:
Worldwide 2m packet uplink: 145.825 MHz FM 1k2
Worldwide 2m packet downlink: 145.825 Mhz FM 1k2
Worldwide 70cm packet uplink: 437.550 Mhz FM 1k2
Worldwide 70cm packet downlink: 437.550 Mhz FM 1k2

Voice:
Region 1 voice uplink: 145.200 MHz FM

Region 2/3 voice uplink: 144.490 MHz FM
Worldwide downlink: 145.800 MHz FM

Crossband Repeater:
Repeater Uplinks: 1269.650 MHz FM
437.800 MHz FM
145.990 MHz FM - 67.0 PL (Kenwood)
Repeater Downlink: 145.800 MHz FM
437.800 MHz FM (Kenwood)

SSTV Robot 36:
Downlink: 145.800 MHz FM

Mode and Antenna Polarization:
V: Linear
U: Linear

Callsigns:
Belgian: OR4ISS
German: DP0ISS
Russian: RS0ISS
RZ3DZR
United States: NA1SS
2m Packet Mailbox: RS0ISS-11
2m Digipeater alias: ARISS
70cm Packet Mailbox: RS0ISS-1
70cm Digipeater callsign: RS0ISS
70cm Digipeater alias: ARISS

Official ARISS Webpage: http://www.rac.ca/ariss
ISS Fan Club Webpage: http://www.issfanclub.com
APRS tracking page: http://www.ariss.net/

ISS Daily Crew Schedule: http://spaceflight.nasa.gov/station/timelines
Remember that the crew operates on UTC time. Also, all of the time
line is NOT translated from Russian and posted.
[02112013]
NNNN
/EX

SB SAT @ AMSAT W8ISS $WSR-056.S2
WSR 056 Part 2 02/25/2013

AMSAT NEWS SERVICE BULLETIN 056.S2
FROM AMSAT HQ SILVER SPRING, MD, February 25, 2013
TO ALL RADIO AMATEURS
BID: $WSR-056.S2

Fitsat-1
Catalog number: 38853
Launch Date: October 04, 2012
Launch site: Kibo Japanese Experiment Module, International Space
Station

Status: Operational

Uplink:
Downlink(s): 437.445MHz 1k2 AFSK
5840.00 MHz 115k2 data
LED CW (200w pulses)

Beacon(s): 437.250 MHz CW

Callsign: NIWAKA

URL: http://carpcomm.com/satellite/fitsat1
[10292012]
=====
TechEdSat
Catalog number: 38854
Launch date: October 04, 2012
Launch site: Kibo Japanese Experiment Module, International Space
Station

Uplink(s):
Downlink(s): 437.465 1k2 AFSK

Beacon(s):

Callsign:

URL:http://www.techedsat.com/
[10152012]
=====
We Wish
Catalog number: 38856
Launch date: October 04,2012
Launch Site: Kibo Japanese Experiment Module, International Space
Station

Uplink(s):
Downlink(s): 437.505MHz 1k2 AFSK
437.505MHz SSTV

Beacon(s): 437.505MHz CW

Callsign: JQ1ZIJ

URL:
[10152012]
=====
F-1
Catalog number: 38855
Launch Date: October 04, 2012
Launch Site: Kibo Japanese Experiment Module, International Space
Station

Uplink(s):
Downlink(s): 145.980MHz 1k2 AFSK

437.485MHz FM moduled CW

Baecon(s):

Callsign: XV1VN

URL: http://fspace.edu.vn/
[10152012]
=====
Aeneas
Catalog Number: 38760
Launch Date: September 13, 2012 2139z
Launch Site: Wallops Island, Virginia, USA

Status: On Orbit

Uplink: WiFi 2425MHz
Downlink:
WiFi: 2425MHz
Spread Spectrum: Somewhere in the 70cm band

Beacon: 437.600MHz 1k2 ax25 every 10 seconds

Callsign:

URL:
[10012012]
=====
CSSWE (Colorado Student Space Weather Experiment)
Catalog Number: 38761
Launch Date: September 12, 2012 2139z
Launch Site: Wallops Island, Virginia, USA

Status: On Orbit

Uplink:
Downlink: 437.345MHz 9k6 with ax.25

Beacon:

Callsign:

URL:
[10012012]
=====
CP5 (Polysat)
Catalog Number: 38763
Launch Date: September 12, 2012 2139z
Launch Site: Wallops Island, Virginia, USA

Status: On Orbit

Uplink:
Downlink: 437.405MHz AFSK on LSB ax.25 over NRZI at 1k2 baud,
every 2

minutes, begins 3.5 hours after first turn-on

Beacon:

Callsign:

URL:
[10012012]
=====
CXBN (Cosmic X-Ray Background Nanosatellite)
Catalog Number: 38762
Launch Date: September 12, 2012 2139z
Launch Site: Wallops Island, Virginia, USA

Status: On Orbit

Uplink:
Downlink: 437.525MHz GFSK ax.25

Beacon:

Callsign:

URL:
[10012012]
=====
Proiteres
Catalog Number: 38756
Launch Date: September 09, 2012 2139z
Launch Site: Satish Dhawan Space Centre, India

Status: On Orbit

Uplink:
Downlink: 437.485MHz FM/AFSK

Beacon:

Callsign: JL3YZK

URL:
[10012012]
=====
RS-40 MiR (Yubileiny-2)
Catalog Number: 38735
Launch Date: July 28, 2012
Launch Site: Plesetsk Missile and Space Complex, Russia

Status: On Orbit

Uplink:
Downlink(s): 435.265 MHz
435.365 MHz

Beacon:

Callsign:

URL:
[08272012]
=====
HORYU-II
Catalog number: 38340
Launch Date: May 17, 2012 1639z

Status: On Orbit

Uplink: 145.??? MHz
Downlink: 437.375 MHz CW/AX25/FSK

Beacon: 437.375 MHz CW

Callsign: JG6YBW

URL:

IARU Coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=216
[10012012]
=====
XaTcobeo
Catalog Number: 38082
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: Operational

Uplink:
Downlink: 437.365 MHz FFSK with AX.25

Beacon:

Callsign:

URL:

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=135
[100162012]
=====
UniCubeSat
Catalog Number: 38085(?)
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: Operational

Uplink:
Downlink: 437.305 MHz 9k6 bps GMSK

Beacon:

Callsign:

URL:
http://www.gaussteam.com/index.php?option=com_content&view=article&id=
96:unicu
besat&catid=36:unicubesat&Itemid=183

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=133
[10012012]
=====
Robusta
Catalog Number: 38083(?)
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: On Orbit

Uplink:
Downlink: 437.325 MHz 1k2 FM telemetry (data every 3 min, 20 sec.
burst)

Beacon:

Callsign:

URL:

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=122
[10012012]
=====
MO-72 MaSat-1
Catalog Number: 38081
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: Operational

Uplink:
Downlink: 437.345 MHz GFSK 625/1250 bps
437.345 MHz CW

Beacon:

Callsign:

URL:

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=126
[10012012]
=====
Goliat
Catalog Number: 38084(?)
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: Operational

Uplink:
Downlink: 437.485 MHz 1k2 AFSK

Beacon:

Callsign:

URL:

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=98
[10012012]
=====
E-St@r
Catalog Number: 38079
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: On Orbit

Uplink:
Downlink: 437.445 MHz 1k2 bps AFSK

Beacon:

Callsign:

URL:

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=130
[10012012]
=====
ALMASat-1
Catalog Number: 38078
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: On Orbit

Uplink:
Downlink: 437.465 MHz 1k2 bps FSK
2407.850 MHz

Beacon:

Callsign:

URL:

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=39
[10012012]
=====
RS-39 Chibis-M

Catalog Number: 38051
Launch Date: October 30, 2011 10:11:00 UTC
Launch site: Tyuratam (Baikonur Cosmodrome), Kazakhstan

Status: Operational

Uplink:
Downlink:

Beacon: 435.315 MHz CW
435.215 MHz CW

Callsign:

URL:

IARU coordination status page:
[07302012]
=====
JUGNU
Catalog Number: 37839
Launch Date: October 12, 2011 05:30:00 UTC
Launch site: Satish Dhawan Space Centre, India

Status: On Orbit

Uplink: 145.??? MHz 1k2 (mode?)
Downlink: 437.505 MHz 9k6 (mode?)

Beacon: 437.275 MHz 15 wpm (?) CW

Callsign:

URL: http://www.iitk.ac.in/me/jugnu/index.htm

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=160
[07092012]
=====
SRMSAT
Catalog Number: 37841
Launch Date: October 12, 2011 05:30:00 UTC
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Uplink: 145.900 MHz 1k AX.25 (speed?)
Downlink: 437.500 MHz 2k4 AX.25

Beacon: 437.425 MHz 12 wpm CW

Callsign:

URL: http://srmsat.in/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=181
[01282013]
=====
HRBE (E1P Explorer 1 [Prime] CubeSat (E1P-U2))
Catalog Number: 37855
Launch Date: October 28, 2011
Launch site: Vandenberg Air Force Base, California, USA

Status: On Orbit

Uplink: 437.305 MHz (???)
Downlink: 437.505 MHz AX.25 (SSB?)

Beacon:

Callsign:

URL: http://ssel.montana.edu/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=116
[01122012]
=====
M-Cubed
Catalog Number: 37855
Launch Date: October 28, 2011
Launch site: Vandenberg Air Force Base, California, USA

Status: On Orbit

Uplink:
Downlink: 437.485 MHz AX.25

Beacon:

Callsign:

URL: http://umcubed.org/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=215
[01122012]
=====
RAX-2
Catalog Number: 37853
Launch Date: October 28, 2011
Launch site: Vandenberg Air Force Base, California, USA

Status: Operational

Uplink:
Downlink: 437.345MHz 9k6 GMSK

Beacon:

Callsign:

URL: http://rax.engin.umich.edu//

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=221
[03232012]
=====
AO-71 AubieSat-1
Catalog Number: 37854
Launch Date: October 28, 2011
Launch site: Vandenberg Air Force Base, California, USA

Status: On Orbit

Uplink:
Downlink: 437.475 MHz 1k2 AX.25

Beacon: 437.475 MHz CW

Callsign: KI4NQO

URL: http://www.space.auburn.edu/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=148
[12262011]
=====
O/OREOS
Catalog Number: 37224
Launch Date: November 20, 2010
Launch site: Kodiak Launch Complex, Alaska, USA

Status: On Orbit

Uplink:
Downlink: 437.035 MHZ AX.25

Beacon:

Callsign:

URL: http://www.ooreos.org/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=146
[02092011]
=====
Rax-1 Radio Aurora Explorer
Catalog Number: 37223
Launch Date: November 20, 2010
Launch site: Kodiak Launch Complex, Alaska, USA

Status: On Orbit

Uplink:
Downlink: 437.505 MHz 9k6 GMSK

Beacon:

Callsign: RAX-1

URL: http://rax.engin.umich.edu/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=165
[02092011]
=====
FO-69 Fastrac-1 Sara Lily
Catalog Number: 37227
Launch Date: November 20, 2010
Launch site: Kodiak Launch Complex, Alaska, USA

Status: Operational

Uplink 1: 145.980 MHz 1k2 baud
Uplink 2: 145.825 MHz 1k2 baud
Downlink: 437.345 MHz 1k2 and 9k6 baud

Beacon: 437.435 MHz 1k2 AX.25

Callsign: Fast1

URL: http://fastrac.ae.utexas.edu/index.php

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=83
[07052011]
=====
FO-70 Fastrac-2 Emma
Catalog Number: 37380
Launch Date: November 20, 2010
Launch site: Kodiak Launch Complex, Alaska, USA

Status: Operational

Uplink 1: 435.025 MHz 1k2 baud
Uplink 2: 437.435 MHz 9k6 baud
Downlink: 145.825 MHz 1k2 and 9k6 baud

Beacon: 145.825 MHz 1k2 AX.25

Callsign: Fast2

URL: http://fastrac.ae.utexas.edu/index.php

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=84
[12162011]
=====
StudSat

Catalog Number: 36796
Launch Date: July 12, 2010 0352z
Launch site: Satish Dhawan Space Centre, India

Status: On Orbit

Uplink: 437.505MHz, 9600bps FSK
Downlink: 437.505MHz, 9600bps FSK
Beacon : 437.505MHz, 20bps ASK

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=164
[02092011]
=====
TIsat-1
Catalog Number: 36799
Launch Date: July 12, 2010 0352z
Launch site: Satish Dhawan Space Centre, India

Status: On orbit

Callsign: HB9DE

Uplink: 145.980MHz FM, AFSK
Downlink: 437.305MHz FM, AFSK
Beacon: 437.305MHz CW

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=118
[02092011]
=====
SwissCube
Catalog Number: 35932
Launch Date: September 23, 2009 0621z
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Callsign: HB9EG

Beacon(100mw): 437.5050MHz CW
Beacon(1w): 437.5050MHz FSK 1k2bps

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=109
[02092011]
=====
UWE-2
Catalog Number: 35934
Launch Date: September 23, 2009 0621z
Launch site: Satish Dhawan Space Centre, India

Status: In Orbit

Beacon(500mw): 437.3850 MHz AFSK 1k2bps
437.3850 MHz FSK 9k6bps

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=110
[02092011]
=====
ITUpsAT1
Catalog Number: 35935
Launch Date: September 23, 2009 0621z
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Beacon(100mw): 437.325MHz CW
Beacon(1w): 437.325MHz 19k2bps

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=113
[02092011]
=====
BEESAT
Catalog Number: 35933
Launch Date: September 23, 2009 0621z
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Callsign: DP0BEE

Beacon(100mw): 436.000MHz CW
Beacon(500mw): 436.000MHz GMSK 4k8bps
Beacon(500mw): 436.000MHz GMSK 9k6bp
[02092011]
=====
SOHLA-1 (ASTRO TECH.)
Catalog Number: 33496
Launch Date: January 23, 2009 0354z
Launch site: Tanegashima Space Center, Japan

Status: Operational

Proposed Frequencies and Modes:
Downlink: 437.505 MHz AFSK/CW
Beacon: 437.505 MHz AFSK/CW

Callsign:

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=101
[02092011]
=====
KAGAYAKI (Solan Co.)
Catalog Number: 33495
Launch Date: January 23, 2009 0354z

Launch site: Tanegashima Space Center, Japan

Status: In Orbit

Downlink: 437.375 MHZ FSK9k6/CW
Beacon: 437.375 MHz FSK9k6/CW

IARU coordination status page:

AMSAT-NA webpage:

[02092011]
=====
STARS (Kagawa Univ.) (Twin Satellites)
Catalog Number: 33498
Launch Date: January 23, 2009 0354z
Launch site: Tanegashima Space Center, Japan

Status: Operational ?

Downlinks: 437.485 MHz FM/CW
437.465 MHz FM/CW
Beacons: 437.305 MHz FM/CW
437.275 MHz FM/CW

Callsigns: JR5YBN
JR5YBO

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=99

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=121&retURL
=/satellites/status.php
[02092011]
=====
KKS-1 (Tokyo MCIT)
Catalog Number: 33499
Launch Date: January 23, 2009 0354z
Launch site: Tanegashima Space Center, Japan

Status: Operational

Downlink: 437.455 MHz AFSK/CW
Beacon: 437.385 MHz AFSK/CW

Callsign: JQ1YYY

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=107

AMSAT-NA webapge:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=120&retURL
=/satellites/status.php
[20092011]

=====
PRISM (Tokyo Univ.)
Catalog Number: 33493
Launch Date: January 23, 2009 0354z
Launch site: Tanegashima Space Center, Japan

Status: Operational

Uplink: 145.xxx MHz AFSK 1k2
Downlink: 437.425 MHz AFSK 1k2
Beacon: 437.250 MHz CW

Callsign: JQ1YCX

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=97

Read terms and conditions of operations at the PRISM web page to find
out how
to properly operate on the satellite and to get the uplink frequency.
It
has
been asked that the uplink frequency not be given out untik you have
read and
understood the terms of usage.

URL:
http://www.space.t.u-tokyo.ac.jp/prism/en/HAMservice.html
[10282012]
=====
RS-30 Radio Sputnik 30 (Yubileiny)
Catalog Number: 32953
Launch Date: May 23, 2008 1520z
Launch site: Plesetsk Missile and Space Complex, Russia

Status: Operational

Curent Modes: Telemetry
Audio
Images

Downlinks: 435.315 MHz
435.215 MHz

AMSAT-NA website:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=115&ret
URL=/satellites/status.php

Official website:
http://www.npopm.com/?cid=leoca&caid=43
[02092011]
=====
CanX-2
Catalog number: 32790

Launch Date: April 28, 2008 0354z
Launch site: Satish Dhawan Space Centre, India

Status: Operational in range of ground station only

Downlink: 437.478 MHz GFSK

For the latest project status update please visit the Can X-2 web
page: http://www.utias-sfl.net/nanosatellites/CanX2/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=46
[02092011]
=====
AAUSAT-II
Catalog number: 32788
Launch Date: April 28, 2008 0354z
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Downlink: 437.425 MHz 1k2 baud packet

For the latest project status update please visit the AAUSAT-II web
page:
http://www.aausatii.aau.dk/homepage/index.php?language=en&page=home

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=60
[02092011]
=====
CO-65 CUTE-1.7+APD II
Catalog number: 32785
Launch Date: April 28, 2008 0354z
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Downlink: 437.475 MHz 9k6 Packet
Uplink: 1267.600 Mhz

Telemetry Beacon:
Downlink: 437.2750 MHz CW

For the latest project status update please visit the Cute-1.7+APD II
web page: http://lss.mes.titech.ac.jp/ssp/cute1.7/index_e.html

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=78

Command Station blog website:
http://lss.mes.titech.ac.jp/ssp/cute1.7/blog/

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=112&retURL

=/satellites/status.php
[03232012]
=====
Compass-1
Catalog number: 32787
Launch Date: April 28, 2008 0354z
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Current Mode: dependant on last received command

Uplink: 145.980 MHz FM
Downlink: 437.275 Mhz CW
437.405 MHz Packet

For the latest project status update please visit the Compass 1 web
page: http://www.raumfahrt.fh-aachen.de/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=52

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=114&retURL
=/satellites/status.php
[06162011]
=====
CO-66 Seeds II
Catalog number: 32791
Launch Date: April 28, 2008 0354z
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Downlink: 437.485 MHz

Callsign: JQ1YGU

For the latest project status update please visit the Seeds 2 web
page: http://cubesat.aero.cst.nihon-u.ac.jp/english/seeds_2_e.html

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=36

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=113&retURL
=/satellites/status.php
[073092011]
=====
CAPE-1
Catalog Number: 31130
Launch Date: April 17,2007 0702z
Launch site: Baikonur, Kazakhstan

Status: Intermittent

Current Mode: /u

TLM Downlink: 435.245 MHz 9600 bs FSK AX.25
CW Beacon: 435.245 MHz CW

Callsign: K5USL

TLM and CW interchange every 30 seconds.

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=94&retURL=
/satellites/status.php

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=72
[02092011]
=====
CP3
Catalog Number: 31129
Launch Date: April 17,2007 0702z
Launch site: Baikonur, Kazakhstan

Status: Operational

Current Mode: /u

Downlink: 436.845 MHz 1200 bps AFSK AX.25

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=74
[02092011]
=====
CO-58 CubeSat XI-V
Catalog number: 28895
Launch Date: October 27, 2005 0652z
Launch site: Plesetsk Missile and Space Complex, Russia

Status: Operational - CW Beacon only

Current Mode: /u

Telemetry Downlink: 437.4250 MHz AFSK 1200bps using AFK protocol
Beacon: 437.2750 MHz CW

Callsign: JQ1YGW

Official Webpage: http://www.space.t.u-tokyo.ac.jp/cubesat/mission/V/

Pictures received by Mineo Wakita - JE9PEL:
http://www.ne.jp/asahi/hamradio/je9pel/xivpicte.htm

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=37
[02092011]
=====

CO-57 CubeSat XI-IV
Catalog number: 27848
Launch date: June 30, 2003 1415z
Launch site: Plesetsk Missile and Space Complex, Russia

Status: ?????

Current Mode: /u

Beacon: 436.8475 MHz CW
Telemetry : 437.4900 MHz AFSK 1200 BPS

Callsign: JQ1YGW

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=96&retURL
=/satellites/status.php

Official Webpage: http://www.space.t.u-tokyo.ac.jp/cubesat/mission/V/
[02092011]
=====
QuakeSat
Catalog Number: 27845
Launch Date: June 30, 2003 1415z
Launch site: Plesetsk Missile and Space Complex, Russia

Status: Telemetry only

Current Mode: 9600 baud data packet

Mode U packet
Downlink: 436.675 MHz 9k6 BPS

Quakesat webpage:
http://www.quakefinder.com/services/quakesat-ssite/
[02252011]
=====
CO-55 Cute-1.7+APD II
Catalog Number: 27844
Launch date: June 30, 2003 1415z
Launch site: Plesetsk Missile and Space Complex, Russia

Status: Operational

Current Mode: CW downlink worldwide
AX25 Packet with uplink command over Japan only

Mode U Telemetry
Downlink: 437.4000 MHz AFSK 1200 BPS

Mode U TLM Beacon
Downlink: 436.8375 MHz CW

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=69&retURL

=/satellites/status.php

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=78
[02092011]
=====
NO-44 PCSAT
Catalog number: 26931
Launch Date: September 30, 2001 0240z
Launch site: Kodiak Launch Complex, Alaska, USA

Status: Operational

Current Mode: V/v

General Usage Uplink/Downlink: 145.827 MHz 1200 Baud
Special Usage Downlink: 144.390 Mhz 1200 Baud

PCSAT APRS page: http://pcsat.aprs.org

aprstlm Telemetry Decoder program:
http://www.xciv.org/~iain/aprstlm/v1.2/
[10292012]
=====
RS-22 RADIO SPORT 22 (MOZHAYETS 4)
Catalog number: 27939
Launch Date: September 27, 2003 0612z
Launch site: Plesetsk Missile and Space Complex, Russia

Status: Operational - 70cm cw only

Current Mode: /u

CW Beacon - 435.352 MHz
145.818 MHz

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=76&retURL
=/satellites/status.php
[02092011]
=====
LO-19 LUSAT
Catalog number: 20442
Launch date: January 22, 1990
Launch site: Kourou, French Guiana

Status: CW Beacon only

Uplinks: 145.840 MHz 1200-baud Manchester FSK
145.860 MHz 1200-baud Manchester FSK
145.880 MHz 1200-baud Manchester FSK
145.900 MHz 1200-baud Manchester FSK

CW downlink: 437.125 MHz

Digital downlink: 437.150 MHz SSB (RC-BPSK 1200-baud PSK)

Broadcast Callsign: LUSAT-11
BBS: LUSAT-12

General information and telemetry samples can be found at:
www.telecable.es/personales/ea1bcu
[02092011]
=====
UO-11 OSCAR-11
Catalog number: 14781
Launch Date: March 1, 1984
Launch site: Vandenburg AFB, California, USA

Status: Operational ?

Current Mode: /v

Telemetry Downlink: 145.825 MHz FM 1200 AFSK
UHFBeacon: 435.025 MHz
Mode-S Beacon: 2401.500 MHz

Mode and Antenna Polarization:
V: RHCP
S: LHCP

Webpage: http://www.users.zetnet.co.uk/clivew/
MPEG3 files: http://www.ne.jp/asahi/hamradio/je9pel/uo11tlme.htm
[07052011]
=====
INTERNATIONAL SPACE STATION (ISS) - ARISS
Catalog number: 25544
Launch date: November 20, 1998 0640z (ZARYA module)
Launch sites: Baikonur, Kazakhstan
Kourou, French Guiana
Uchinoura Space Center, Japan
Kennedy Space Center, Titusville, Florida, USA

Status: Operational

Current Active Modes: FM Repeater - OFF
Voice - V/v
BBS - V/v
2m APRS - V/v
2m Digi - V/v
70cm APRS - ?
70cm Digi - ?
SSTV - V/v

Expedition 34 Crew (November 2012 - March 2013):
Commander: Kevin Ford KF5GPP
Flight Engineer: Oleg Novitskiy
Flight Engineer: Evgeny Tarelkin
Flight Engineer: Roman Romanenko

Flight Engineer: Chris Hadfield KC5RNJ/VA3OOG
Flight Engineer: Tom Marshburn KE5HOC

Available Modes and Frequencies:
Digital/APRS:
Worldwide 2m packet uplink: 145.825 MHz FM 1k2
Worldwide 2m packet downlink: 145.825 Mhz FM 1k2
Worldwide 70cm packet uplink: 437.550 Mhz FM 1k2
Worldwide 70cm packet downlink: 437.550 Mhz FM 1k2

Voice:
Region 1 voice uplink: 145.200 MHz FM
Region 2/3 voice uplink: 144.490 MHz FM
Worldwide downlink: 145.800 MHz FM

Crossband Repeater:
Repeater Uplinks: 1269.650 MHz FM
437.800 MHz FM
145.990 MHz FM - 67.0 PL (Kenwood)
Repeater Downlink: 145.800 MHz FM
437.800 MHz FM (Kenwood)

SSTV Robot 36:
Downlink: 145.800 MHz FM

Mode and Antenna Polarization:
V: Linear
U: Linear

Callsigns:
Belgian: OR4ISS
German: DP0ISS
Russian: RS0ISS
RZ3DZR
United States: NA1SS
2m Packet Mailbox: RS0ISS-11
2m Digipeater alias: ARISS
70cm Packet Mailbox: RS0ISS-1
70cm Digipeater callsign: RS0ISS
70cm Digipeater alias: ARISS

Official ARISS Webpage: http://www.rac.ca/ariss
ISS Fan Club Webpage: http://www.issfanclub.com
APRS tracking page: http://www.ariss.net/

ISS Daily Crew Schedule: http://spaceflight.nasa.gov/station/timelines
Remember that the crew operates on UTC time. Also, all of the time
line is NOT translated from Russian and posted.
[12242012]
NNNN
/EX

SB SAT @ AMSAT W8ISS $WSR-056.S3
WSR 056 Part 3 02/25/2013

AMSAT NEWS SERVICE BULLETIN 056.S3
FROM AMSAT HQ SILVER SPRING, MD, February 25, 2013
TO ALL RADIO AMATEURS
BID: $WSR-056.S3

THE FOLLOWING ARE IN ORBIT BUT ARE NON-OPERATIONAL AT THIS TIME:

NANOSAIL-D
Catalog Number: 37361
Ejection Date: January 17, 2011

Status: Non - Operational

Downlink: 437.270 MHz AX.25

URL: http://nanosaild.engr.scu.edu/dashboard.htm

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=115
[07302012]
=====
HO-68 HOPE-1 (CAS-1) (XW-1)
Catalog Number: 36122
Launch Date: December 15, 2009 0231z
Launch site: Taiyuan Space Center, PRC

Status: Telemetry only

Callsign:
Broadcast: BJ1SA-11
BBS: BJ1SA-12

Uplinks: 145.8250 MHz FM, PL 67.0 Hz.
145.9250 - 145.9750 MHz SSB/CW
145.8250 MHz AFSK 1200 BPS
Downlinks: 435.6750 MHz FM
435.7650 - 435.7150 MHz SSB/CW
435.6750 MHz AFSK 1200 BPS

Beacon: 435.7900 MHz CW

Mode and Antenna Polarization:
V: LHCP 2.0dBi max
U: RHCP 3.0dBi max

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=108

For more information about XW-1 (CAS-1):
http://
[04302012]
=====
SO-67 SumbandilaSat

Catalog Number: 35870
Launch Date: September 17, 2009 1555z
Launch site: Baikonur, Kazakhstan

Status: Non - Operational

Callsign: ZS0SUM

Uplink: 145.875MHz FM tone 233.6 Hz
Downlink: 435.345MHz FM

Mode and Antenna Polarization:
V: Linear
U: Linear

For more information about SO-67:
http://www.amsatsa.org.za/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=88
[01272012]
=====
CP4
Catalog Number: 31132
Launch Date: April 17, 2007

Status: Non-Operational

Current Mode: /u

TLM Downlink: 437.325 MHz 1200 bps FSK AX.25
CW Beacon: 437.325 MHz CW

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=79
[09062010]
=====
LIBERTAD-1
Catalog Number: 31128
Launch Date: April 17, 2007

Status: Non-Operational

Current Mode: V/u APRS Packet ax25

Callsign: 5K3L

Uplink: 145.825 MHz 1200 AFSK ax25 APRS
Downlink: 437.399 MHz 1200 AFSK ax25 APRS

Telemetry Beacon: 437.4050 MHz 1200 AFSK ax25

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=76
[09062010]

=====
PO-63 PEHUENSAT-1
Catalog Number: 29712
Launch Date: January 10, 2007

Status: Non-Operational

Current Mode: V/v

Uplink/Downlink: 145.825 Mhz FM
Voice Recorder: 145.825 Mhz FM

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=51
[09062010]
=====
NCUBE-2
Catalog number: 28897
Launch Date: October 27, 2005

Status: Still attached to XO-53 (SSETI)?

Proposed Callsign: TBA
Proposed Transmit Frequency: 437.305
2407.250

Official Website: http://www.ncube.no

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=24
[09062010]
=====
XO-53 SSETI
Catalog number: 28894
Launch Date: October 27, 2005

Status: Non-operational

Voice Uplink: 437.250 MHz FM 67Hz CTCSS
Voice Downlink: 2401.835 MHz FM
Packet Up/Downlink: 437.250 MHz 9k6 packet
Packet Downlink 2401.835 MHz 38k4 packet

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=54
[09062010]
=====
UWE-1
Catalog Number: 28892
Launch Date: October 27, 2005

Status: Non-Operational

Mode U Telemetry
Downlink: 437.5050 MHz 9600 AFSK

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=53
[09062010]
=====
AO-51 ECHO
Catalog number: 28375
Launch date: June 29, 2004 0745z
Launch site: Baikonur, Kazakhstan

Status: Non - Operational

Current Mode(s):
Voice repeater: V/u
Uplink: 145.880 MHz FM
Downlink: 435.150 MHz FM

Telemetry: Recovery efforts
Downlink: 435.150MHz 9k6

Analog voice downlink: 435.300 MHz FM
435.150 MHz FM
2401.200 Mhz FM
Analog voice uplink: 145.860 MHZ FM
145.880 MHz USB
145.880 MHz FM
145.920 MHz FM
145.920 MHz FM - 67 Hz PL tone burst
1268.705 MHz FM
Digital Downlinks: 435.150 MHz FM 38k4 PBP, 1 watt output
435.150 MHz FM 9k6 Pacsat Broadcast
Protocol
2401.200 MHz FM 38k4 bps, AX.25
Digital Uplink: 145.860 MHz FM 9k6 Pacsat Broadcast
Protocol
1268.703 mhz FM 9k6 Pacsat Broadcast
Protocol
Beacon: 435.150 MHz

Mode and Antenna Polarization:
T: Linear
V: Linear
U: TX A (usually digital)LHCP
TX B (usually analog) RHCP
L: Linear
S: Linear

Broadcast: PECHO-11
BBS: PECHO-12

Official Webpage: http://www.amsat.org/amsat-new/echo/CTNews.php

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=19
[12062011]
=====
CANX-1
Catalog Number: 27847
Launch Date: June 30, 2003

Status: Non-Operational

Downlink: 437.8800 MHz AFSK 1k2bps
[06052009]
=====
DTUSAT
Catalog Number: 27842
Launch Date: June 30, 2003

Status: Non-Operational

Current Mode: 2k4 AFSK Packet last reported

Downlink: 437.475MHz

Officail webpage: http://dtusat1.dtusat.dtu.dk/

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=101&retURL
=satellites/all_oscars.php
[02212009]
=====
AO-49 AATiS OSCAR-49 (SAFIR-M)
Catalog number: 27605
Launch Date: December 20, 2002

Status: Non-operational.

Uplink: 435.275 MHz 1200-baud AFSK
Downlink: 145.825 MHz 9600-baud FSK
(optional voice message)

Broadcast callsign: DP0AIS

Official webpage: http://amend.gmxhome.de
[01222007]
=====
MO-46 TIUNGSAT-1
Catalog number: 26548
Launch date: September 26, 2000

Status: Telemetry only

Uplinks: 145.850 MHz
145.925 MHz 9600-baud FSK
Downlink: 437.325 MHz

Broadcast callsign: MYSAT3-11
BBS: MYSAT3-12

TiungSat-1 is Malaysia's first micro-satellite and in addition to
commercial land and weather imaging payloads offers FM and FSK
Amateur Radio communication.

TiungSat-1, named after the mynah bird of Malaysia, was developed as
a collaborative effort between the Malaysian government and Surrey
Satellite Technology Ltd.
[03302009]
=====
NO-45 SAPPHIRE
Catalog number: 26932
Launch Date: September 30, 2001

Status: Non-Operational

Downlink: 437.095 MHz 1200 baud AX-25 AFSK
Uplink: 145.945 MHz UI Digipeater
Digi Callsign: KE6QMD

Everyone is welcome to use the digipeating/APRS features of Sapphire,
as per the user service agreement located at the following URL:
http://web.usna.navy.mil/~bruninga/pcsat/contract.txt
[03132005]
=====
SO-42 SAUDISAT-1B
Catalog number: 26549
Launch date: September 26, 2000

Status: Non-Operational

Downlink: 437.075 MHz

Broadcast Callsign: SASAT2-11
BBS: SASAT2-12

Further information is available at:
http://www.amsat.org/amsat/sats/n7hpr/so42.html
[01222007]
=====
SO-41 SAUDISAT-1A
Catalog number: 26545
Launch Date: September 26, 2000

Status: Non-Operational

Uplink: 145.850 MHz
Downlink: 436.775 MHz

Broadcast Callsign: SASAT1-11
BBS: SASAT1-12

Further information is available at:
http://www.amsat.org/amsat/sats/n7hpr/so41.html
[01222007]
=====
AO-40 AMSAT OSCAR 40
Catalog number: 26609
Launch Date: November 16, 2000

Status: Non-Operational

Uplinks

V-band: 145.840 - 145.990 MHz CW/LSB
U-band: 435.550 - 435.800 MHz CW/LSB
L1-band: 1269.250 - 1269.500 MHz CW/LSB
L2-band: 1268.325 - 1268.575 MHz CW/LSB

Downlinks

S2-band: 2401.225 - 2401.475 MHz CW/USB
K-band: 24048.010 - 24048.060 MHz CW/USB
Beacon: 2401.323 MHz
24048.035 MHz

P3-D Telemetry Beacons (IHU)

BEACON General Beacon(GB) Middle Beacon(MB) Engineering Beacon(EB)
2 m none 145.898 MHz none
70cm 435.438 MHz 435.588 MHz 435.838 MHz
13cm(1) 2400.188 MHz 2400.338 MHz 2400.588 MHz
13cm(2) 2401.173 MHz 2401.323 MHz 2401.573 MHz
3cm 10450.975 MHz 10451.125 MHz 10451.375 MHz
1.5cm 24047.885 MHz 24048.035 MHz 24048.285 MHz
[07162007]
=====
OO-38 OPAL
Catalog Number: 26063
Launch Date: January 27, 2000

Status: Non-Operational

Mode U TLM Beacon
Downlink: 437.1000 MHz 9600 FSK
[08132007]
=====
UO-36 UoSAT-12
Catalog number: 25693
Launch date: April 21, 1999

Status: Unknown

Uplink: 145.960 MHz (9600-baud FSK)
Downlinks: 437.025 MHz
437.400 MHz

Broadcast Callsign: UO121-11
BBS: UO121-12

The VK5HI viewer shareware for UO-36 is available on the AMSAT-NA web
site at the following URL:
ftp://ftp.amsat.org/amsat/software/win32/display/ccddsp97-119.zip
[01222007]
=====
SO-35 SUNSAT
Catalog Number: 25636
Launch date:February 23, 1999

Status: Non-Operational

Downlink: Mode B Repeater: 436.291 MHz
Mode J Digipeater: 436.250 MHz

Uplinks: Mode B Repeater: 145.825 MHz
Mode J Digipeater: 145.825 MHz
145.900 MHz

For more information of SUNSAT vist the satellite web site:
http://esl.ee.sun.ac.za/projects/sunsat/
[01222007]
=====
PO-34 PANSAT
Catalog number: 25520
Launch date: October 30, 1998

Status: Telemetry downloads only

Uplink/downlink: 436.500 MHz

Official Webpage: http://www.sp.nps.navy.mil/pansat/
[05092004]
=====
SO-33 SEDSAT-1
Catalog number: 25509
Launch date: October 24, 1998

Status: Semi-operational

Downlink: 437.910 MHz FM (9600-baud FSK)

The satellite is not currently available for uplink transmissions and
the image and transponder recovery efforts have been unsuccessful.

For more information on SedSat-1 visit the satellite web site:
http://seds.uah.edu/projects/sedsat/sedsat.htm
[09042006]
=====
GO-32 Gurwin TechSat-1B
Catalog number: 25397
Launch Date: July 10, 1998

Status: Non-Operational

Current Modes:
Telemetry : /u

Downlink: 435.225 MHz FM (9600-baud FSK)
435.325 Mhz - Not Available - temperature problems
Uplinks: 145.850 FM
145.890 FM
145.930 FM
1269.700 FM
1269.800 FM
1269.900 FM

Broadcast Callsign: 4XTECH-11
BBS Callsign: 4XTECH-12

More information of GO-32 can be found at:
http://asri.technion.ac.il/techsat/

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=14&retURL
=/satellites/status.php
[07172010]
=====
TO-31 TMSAT-1
Catalog number: 25396
Launch Date: July 10, 1998

Status: Non-operational

Uplink: 145.925 MHz 9600 baud FSK
Downlink: 436.925 MHz 9600 baud FSK

Broadcast callsign: TMSAT1-11
BBS: TMSAT1-12
[05012006]
=====
MO-30 UNAMSAT-2
Catalog Number: 24305
Launch Date: September 5, 1996

Status: Non-operational

Downlink: 435.1380 MHz AFSK 1200 BPS
Downlink: 435.2060 MHz AFSK 1200 BPS
Uplink: 145.8150 MHz AFSK 1200 BPS
Uplink: 145.8350 MHz AFSK 1200 BPS
Uplink: 145.8550 MHz AFSK 1200 BPS
Uplink: 145.8750 MHz AFSK 1200 BPS
[06042009]
=====
PO-28 POSAT-1
Catalog number: 22829

Launch Date: September 25, 1993

Status: Non-operational

Downlink: 429.950
Uplink: Not until handover back to Amatuer usage

Broadcast callsign: POSAT1-11
BBS callsign: POSAT1-12

AMSAT Webpage: http://www.amsat.org/amsat/sats/n7hpr/po28.html
POSAT-1 webpage:
http://www.ee.surrey.ac.uk/SSC/CSER/UOSAT/missions/posat1.html
[01012009]
=====
AO-27 AMRAD
Catalog number: 22825
Launch Date: September 26, 1993 0140z
Launch site: Kourou, French Guiana

Status: Recovery efforts in progress

Current Mode: V/u

Uplink: 145.850 MHz FM
Downlink: 436.797 MHz FM

Mode and Antenna Polarization:
V: Linear
U: Linear

Official Webpage: http://www.ao27.org
[12032012]
=====
IO-26 ITAMSAT
Catalog number: 22826
Launch Date: September 26, 1993 0140z

Status: PSK carrier only

Current Mode:

Uplinks: 145.875 MHz FM 1200-baud
145.900 MHz FM 1200-baud
145.925 MHz FM 1200-baud
145.950 MHz FM 1200-baud

Downlink: 435.808 MHz PSK

Broadcast Callsign: ITMSAT-11
BBS: ITMSAT-12

Official webpage: http://www.itamsat.org
AMSAT Webpage: http://www.amsat.org/amsat/sats/n7hpr/io26.html
[01212007]

=====
KO-25 KITSAT
Catalog number: 22828
Launch date: September 26, 1993

Status: Non-operational

Uplink: 145.980 MHz FM 9600-baud FSK
Downlink: 436.500 MHz FM

Broadcast Callsign: HL02-11
BBS: HL02-12
[05092004]
=====
AO-24 ARSENE
Catalog Number: 22654
Launch Date: May 13, 1993

Status: Non-operational

Uplink: 435.0625 MHz FM 1k2bps AFSK
435.1125 MHz FM 1k2bps AFSK
435.1375 MHz FM 1k2bps AFSK
Downlink: 145.9750 MHz FM 1k2bps AFSK
2446.5025 MHz FM 1k2bps AFSK

Beacon: 2446.4700 MHz CW

Broadcast callsign:
BBS:
[12162009]
=====
KO-23 KITSAT
Catalog number: 22077
Launch date: August 10, 1992

Status: Non-operational

Uplink: 145.900 MHz FM (9600-baud FSK)
Downlink: 435.170 MHz FM

Broadcast Callsign: HLO1-11
BBS: HLO1-12
[01222007]
=====
UO-22 UOSAT
Catalog number: 21575
Launch date: July 17, 1991

Status: Non-Operational

Uplink: 145.900 FM 9600-baud FSK
Downlink: 435.120 MHz FM

Broadcast Callsign: UOSAT5-11
BBS: UOSAT5-12
[01222007]
=====
AO-21 AMSAT-OSCAR 21
Catalog Number: 21087
Launch Date: January 29, 1991

Status: Non-Operational

Uplink: 435.041 MHz FM DSP
Downlink: 145.983 MHz FM DSP
[01222007]
=====
FO-20 JAS-1b
Catalog number: 20480
Launch Date: February 07, 1990

Status: Non-Operational

Beacons: 435.795 MHz CW
435.910 MHz AX25

Voice Transponder:
Uplink: 145.900 to 146.000 MHz CW/LSB
Downlink: 435.800 to 435.900 MHz CW/USB

Digital Transponder:
Uplinks: 145.850 MHz
145.870 MHz
145.890 MHz
145.910 MHz
Downlink: 435.910 MHz

More FO-20 info can be found at:
http://www.amsat.org/amsat/sats/n7hpr/fo20.html
[01152007]
=====
WO-18 WEBERSAT
Catalog Number: 20441
Launch Date: January 22, 1990

Status: Non-Operational

Downlink: 437.104 MHz SSB 1200 Baud PSK AX.25
[05012006]
=====
DO-17 Dove
Catalog Number: 20440
Launch Date: January 22, 1990

Status: Non-operational.

Downlink: 145.825 MHz FM 1200 Baud AFSK
Beacon: 2401.220 MHz

[05012006]
=====
AO-16 PACSAT
Catalog number: 20439
Launch Date: January 22, 1990

Status: non-operational

Current Mode: V/u

Uplink: 145.900 MHz FM 1200-baud Manchester FSK (reserved)
145.920 MHz FM VOICE
145.940 MHz FM 1200-baud Manchester FSK (reserved)
145.960 MHz FM 1200-baud Manchester FSK (reserved)

Downlink: 437.026 MHz USB VOICE
(1200-baud PSK - MBL Telemetry Only)

Mode-S Beacon: 2401.1428 MHz [NO FUTURE OPERATIONS PLANNED]

Mode and Antenna Polarization:
U: RC 437.050 MHz RHCP
PSK 437.026 MHz LHCP
V: Linear

Broadcast Callsign: PACSAT-11
BBS: PACSAT-12

AO-16 AMSAT Webpage: http://www.amsat.org/amsat/sats/n7hpr/ao16.html
[07242009]
=====
UO-15 UoSAT-4
Catalog Number: 20438
Launch Date: January 22, 1990

Status: Non-operational

Uplink: ?
Downlink: 435.1250MHz (?)
435.1200MHz (?)
[06042009]
=====
UO-14 UoSAT-3
Catalog number: 20437
Launch date: January 22, 1990

Status: Non-operational

Uplink: 145.975 MHz FM
Downlink: 435.070 MHz FM
[05092004]
=====
FO-12 Fuji-OSCAR 12
Catalog Number: 16909

Launch Date: August 12, 1986

Status: Non-Operational

Mode V/U (J) Linear Transponder (Inverting):
Uplink: 145.9000 - 146.0000 MHz SSB/CW
Downlink 435.8000 - 435.9000 MHz SSB/CW

Mode V/U (J) Packet:
Uplink: 145.8500 MHz MFSK 1200 BPS
Uplink: 145.8700 MHz MFSK 1200 BPS
Uplink: 145.8900 MHz MFSK 1200 BPS
Uplink: 145.9100 MHz MFSK 1200 BPS

Downlink 435.9100 MHz PSK 1200 BPS

Telemetry Beacon: 435.7950 MHz SSB/CW
[01152007]
=====
AO-10 OSCAR 10
Catalog number: 14129
Launch Date: June 16, 1983

Status: Non-operational

Uplink: 435.030 to 435.180 MHz CW/LSB
Downlink: 145.975 to 145.825 MHz CW/USB

Beacon: 145.810 MHz (unmodulated carrier)

W4SM has more information about the satellite at the following URL:
http://www.cstone.net/~w4sm/AO-10.html
[05092004]
=====
AO-8 AMSAT-OSCAR 8
Catalog Number: 10703
Launch Date: March 3, 1978

Status: Non-Operational

Mode V/U (J) Linear Transponder (Non-Inverting): Non-Operational
Uplink: 145.9000 - 146.0000 MHz SSB/CW
Downlink 435.1990 - 435.2000 MHz SSB/CW

Mode V/U (J) TLM Beacon: Non-Operational
Downlink 435.0950 MHz CW

Mode V/A (A) Linear Transponder (Non-Inverting): Non-Operational
Uplink: 145.8500 - 145.9000 MHz SSB/CW
Downlink 29.4000 - 29.5000 MHz SSB/CW

Mode V/A (A) TLM Beacon: Non-Operational
Downlink 29.4020 MHz CW
[01152007]
=====

AO-6 AMSAT-OSCAR 6
Catalog Number: 06236
Launch Date: October 15, 1972

Status: Non-Operational

Uplink: 145.9000 - 146.0000 MHz SSB/CW
Downlink: 29.4500 - 29.5500 MHz SSB/CW
Beacons: 29.450 MHz
435.100 MHz
[01312008]
=====
AO-5 Australis-OSCAR 5
Catalog Number: 04321
Launch Date: January 23, 1970

Status: Non-Operational

Telemetry Beacons: 144.0500 MHz CW
29.4500 MHz CW
[01152007]
=====
OSCAR III
Catalog Number: 01293
Launch Date: March 09, 1965

Status: Non-Operational

Uplink: 145.9750 - 146.0250 MHz SSB/CW
Downlink: 144.3250 - 144.3750 MHz SSB/CW
[01012007]
=====
RS-15 RADIO SPORT RS-15
Catalog number: 23439
Launch Date: December 26, 1994

Status: Non-operational

Uplink: 145.858 to 145.898 MHz CW/USB
Downlink: 29.354 to 29.394 MHz CW/USB

Beacon 1: 29.352 MHz (intermittent)
Beacon 2: 29.398 MHz

SSB meeting frequency: 29.380 MHz (unofficial)
[06202004]
=====
RS-13 RADIO SPORT RS-13
Catalog number: 21089
Launch date: February 5, 1991

Status: Non-operational

Uplink: 21.260 to 21.300 MHz CW/USB
Downlink: 145.860 to 145.900 MHz CW/USB

Beacon: 145.860 MHz

Robot: 145.908 MHz
[05232004]
=====
RS-12 RADIO SPORT RS-12
Catalog number: 21089
Launch date: February 5, 1991

Status: Non-operational

Uplink: 21.210 to 21.250 MHz CW/USB
Downlink: 29.410 to 29.450 MHz CW/USB

Beacon: 29.408 MHz

Robot: 29.454 MHz
[05232004]
NNNN
/EX

ANS is released worldwide via the AMSAT ANS e-mail reflector and a
live
radiocast on the AMSAT-NA 20-meter net held each Sunday on 14.282 MHz.
Pre-net operations start at 18:00 UTC, with current ANS bulletins
trans-
mitted to the eastern U.S. at 19:00 UTC and to the western U.S. at
19:30
UTC.

Information on AMSAT-NA is available at the following URL:
http://www.amsat.org

Mailing address:
AMSAT-NA
850 Sligo Avenue, Suite 600
Silver Spring, Maryland 20910-4703

Voice: 301-589-6062
888-322-6728
FAX: 301-608-3410

Currently, AMSAT-NA supports the following (free) mailing lists:

* AMSAT News Service (ANS)
* General satellite discussion (AMSAT-BB)
* Orbit data (KEPS)
* Manned space missions (SAREX)
* District of Columbia area (AMSAT-DC)
* New England area (AMSAT-NE)
* AMSAT Educational Liaison mailing list (AMSAT-EDU)
* AMSAT K-12 Educational Liaison mailing list (AMSAT-K12)

A daily digest version is available for each list.

To subscribe, or for more list information, visit the following URL:
http://www.amsat.org/mailman/listinfo/ans

In addition to regular membership, AMSAT-NA offers membership in the President's Club. Members of the President's Club, as sustaining donors to AMSAT Project Funds, will be eligible to receive additional benefits. Application forms are available from the AMSAT-NA Office.

This week's Weekly Satellite Report Editor is James French, W8ISS.

ANS is always dedicated to past ANS editor 'BJ' Arts, WT0N, and to the memory of longtime AMSAT supporters Werner Haas, DJ5KQ, Dennis Kitchen, G0FCL and John Branegan GM4IHJ.

Please send any amateur satellite news or reports to: ans-editor{at} amsat.org
NNNN
/EX

32. ANS-055 AMSAT News Service Weekly Bulletins

Newsgroup: rec.radio.amateur.space
Date: 2013-02-24 14:30:46 UTC
From: JoAnne Maenpaa <k9jkm@comcast.net>
Message-ID: <000c01ce129b$3f26c7a0$bd7456e0$@net>
Source record: 9
Cross-posted to: rec.radio.amateur.space,rec.radio.info

AMSAT NEWS SERVICE
ANS-055

ANS is a free, weekly, news and information service of AMSAT North America, The
Radio Amateur Satellite Corporation. ANS reports on the activities of a
worldwide group of Amateur Radio operators who share an active interest in
designing, building, launching and communicating through analog and digital
Amateur Radio satellites.

Please send any amateur satellite news or reports to:

ans-editor@amsat.org

In this edition:

* STRaND-1 Launch Information
* AMSAT and Virginia Tech Sign Collaboration Agreement
* Upcoming ARISS Contacts
* AMSAT-DC Workshop on Portable Satellite Ground Stations
* US Airforce Upgrades SpaceTrack Website For Keplarian Orbital Data
* Mission to Mars Announcement Expected

SB SAT @ AMSAT $ANS-055.01
ANS-055 AMSAT News Service Weekly Bulletins

AMSAT News Service Bulletin 055.01
From AMSAT HQ SILVER SPRING, MD.
February 24, 2013
To All RADIO AMATEURS
BID: $ANS-055.01

STRaND-1 Launch Information

For those following the STRaND-1 launch on Twitter, the official launch hashtag
of STRaND-1 spacecraft is #S1Launch. Post lunch we #STRaND1 hashtag will be
used.

Launch time is 12:25 GMT 25th Feb 2013 and has been cleared by the Launch
Authorization Board (LAB) for PSLV - C20

Live video launch feeds for Monday's PSLV launch will be available at
http://www.webcast.gov.in/live/ and http://ibnlive.in.com/livetv/

STRaND-1 telemetry format http://www.amsat-uk.org/?page_id=12875

STRaND-1 information http://www.amsat-uk.org/?page_id=12196

[ANS thanks Trever, M5AKA, for the above information]

AMSAT and Virginia Tech Sign Collaboration Agreement

Virginia Polytechnic Institute and State University ("Virginia Tech")
and Radio
Amateur Satellite Corp. ("AMSAT") signed a Collaboration Agreement on
February
4, 2013 that establishes a relationship for future projects in the
development
of space hardware, software, algorithms, documentation of same and an
agreement
to protect each other by protecting ITAR-covered materials and
identifying same
for the other. The agreement was signed by AMSAT President Barry
Baines, WD4ASW
and Virginia Tech Assistant Vice President for Sponsored Programs
Administration
John Rudd.

The Agreement establishes a relationship that will allow both
organizations to
work together on future space mission opportunities as may arise. VT
established the Center for Space Science and Engineering (Space@VT) in
2007 and
with completion of the new Center for Space Science and Engineering
Research
Facility in 2012, has facilities for development of space hardware and
cubesat
development. Programmatic and technical coordination and direction
will be
coordinated between Dr. Robert W. McGwier ,PhD of Virginia Tech and
Anthony
Monteiro, AA2TX AMSAT's VP-Engineering.

"Establishment of a formal relationship between VT and AMSAT provides
the
foundation for potential future satellite program opportunities for
AMSAT as
well as enhances prospects for AMSAT support of STEM (Science,
Technology,
Engineering and Mathematics) education outreach" notes AMSAT President
Barry

Baines, WD4ASW. "Space@VT recognizes the success that AMSAT brings to building
successful spacecraft and with the development of Fox-1, to bring reliable
hardware in support of scientific payloads as well as enhance prospects for
student projects to successfully fly in space. AMSAT benefits from a partner
that will help provide justification for funding of spacecraft that supports
amateur radio in space," he added.

Virginia Tech Professor Bob McGwier, N4HY is looking forward to working with
AMSAT on future projects. Bob remarked, "Being able to combine the student
space science and engineering programs of Virginia Tech with AMSAT's long
history of innovative technical development in spacecraft is a win-win for both
parties. I look forward to working with AMSAT on projects that mutually benefit
space science, student engineering programs, and the amateur radio community."

[ANS thanks AMSAT President Barry Baines, WD4ASW, for the above information]

Upcoming ARISS Contacts

An International Space Station school contact has been planned with participants
at Soleado Elementary School, Ranchos Palos Verdes, CA on 25 Feb. The event is
scheduled to begin at approximately 19:53 UTC. The duration of the contact is
approximately 9 minutes and 30 seconds. The contact will be direct between NA1SS
and KE6JPM. The contact should be audible over California and portions of the
western U.S. Interested parties are invited to listen in on the 145.80 MHz
downlink. The contact is expected to be conducted in English.

Soleado Elementary School's mission is to educate each and every one of its
students to their fullest potential while cultivating a lifelong love of
learning. Named for its beautiful location in the hills of Rancho Palos Verdes,

our school is proud of its rich cultural background, academic
achievement, and
involvement in extra-curricular activities. Our mascot, a
rosy-cheeked sun, is
an exceptionally fitting characterization of our school, which wraps
our
students in the arms of a caring and supportive community that
nurtures
development of the whole child.

Founded in 1968, even Soleado's physical design embodies community and
cooperation, with each core educational building housing five
classrooms with
one wall "open" to a shared "big room" in the center. The open
classroom
environment facilitates daily teacher collaboration and student
interaction
within and among grade levels, while "big rooms" allow for large group
activities and foster a positive feeling of family among our students
and staff.
In addition to our strong sense of community and our open classroom
model,
another distinguishing characteristic of our school is its cultural
and
linguistic diversity. With 420 "Soleado Suns" this year in grades DK
through 5,
our student body encompasses families who come directly from 30
different
countries speaking 21 languages.

Other upcoming contacts:

* 4th Dimotiko Scholeio Chaidariou, Chaidari (near Athens), Greece,
direct via J41ISS
Thu, 28Feb2013, 09:42 UTC

* Talcott Mountain Science Center & Academy, Avon, CT,
direct via W1TMS
Thu, 28Feb2013 15:53 UTC

ARISS is an international educational outreach program partnering the
participating space agencies, NASA, Russian Space Agency, ESA, CNES,
JAXA, and
CSA, with the AMSAT and IARU organizations from participating
countries.

ARISS offers an opportunity for students to experience the excitement
of Amateur
Radio by talking directly with crew members on-board the International
Space
Station. Teachers, parents and communities see, first hand, how
Amateur Radio

and crew members on ISS can energize youngsters' interest in science, technology,
and learning. Further information on the ARISS program is available on the
website http://www.ariss.org/ (graciously hosted by the Radio Amateurs of
Canada).

[ANS thanks David, AA4KN, for the above information]

AMSAT-DC Workshop on Portable Satellite Ground Stations

REGISTER NOW for the AMSAT-DC Spring Workshop 2013. Those who wish to attend
the "Workshop on Portable Satellite Ground Stations" on Saturday, March 23, must
call Martha in advance at AMSAT headquarters at 301-589-6062 to receive a
workshop registration number. Your unique registration number is your ticket to
get in, starting NET 9:00 A.M. EST. There will be no registration at the door.

The suggested donation for advanced registration and admission for non-members
is $25. Registration for each AMSAT member who participates in the event and
registers in advance is free. "The $25 USD donations collected by Martha will
go directly to a worthy cause," says AMSAT Area Coordinator Pat Kilroy, "namely,
to the AMSAT Fox Project."

In lieu of the $25 suggested donation by non-members, one may apply for AMSAT
membership with Martha at the standard rate and then receive a workshop
registration number for free.

The door to the Visitor Center auditorium at the NASA Goddard Space Flight
Center in Greenbelt, Maryland (ZIP Code 20771) will open for station set ups no
earlier than 9:00 A.M. The program will officially begin at ten and run nearly
all day continuously, easily to 4:00 P.M. or beyond. Participants are welcome
to bring their own brown bag lunch. Drinks and condiments will be donated by
fellow AMSAT members.

The workshop program will be informal, with participants given the floor to show
their wares and explain their operation. That is, one teaching one another the
best practices, tools and techniques of successful satellite contacts. "Our
program will be an experiment unto itself to gauge interest and to plan future
AMSAT workshops. Feedback is always welcome," says Pat.

All participants are encouraged to bring their wares to assemble, show and explain.

To volunteer or ask questions contact Pat Kilroy, N8PK, at n8pk@amsat.org.

[ANS thanks Pat Kilroy, N8PK, for the above information]

US Airforce Upgrades SpaceTrack Website For Keplarian Orbital Data

The following is the latest from Vandenburg:

****

We are pleased to announce the upgrade of www.Space-Track.org to add the
look and functionality that matches what is now on
https://beta.space-track.org. The bulk file downloads from our current
Space-Track site will continue to be available to scripters for a limited
time after the upgrade using established URLs.

This upgrade will vastly improve how the Space-Track User community
interacts with orbital element sets, the satellite catalog and conjunction
data. With a robust Representational State Transfer (REST-ful)
Application Programming Interface (API), scripters will be able to get the
latest data available, customized for their purposes.

Here are just a few of the new features that will become part of the
upgraded www.Space-Track.org:
- A streamlined and intuitive user interface that is easier to navigate
and allows simple searches
- A robust help and documentation section - "Favorites" lists to identify
logical groupings of catalog objects that Users can monitor via the web
interface or with the site's API

If you have production scripts that currently use
beta.space-track.org, we
recommend that you change your scripts to point at www.Space-Track.org
on
or after 20 February 2013.

If you have scripts that screen-scrape or download text/zip files from
the
current yellow-colored legacy www.Space-Track.org, they will continue
to
perform correctly for a few months, but we recommend that you quickly
transition your scripts to take advantage of the new API.
Documentation
is available under "Help" to assist you, as well as the API query
builder
tool on the upgraded site.

We have also started sharing information about Space-Track's new
features
on tumblr, facebook and twitter, so please engage us on your favorite
social media platform.

Our sites are http://space-track.tumblr.com,
http://www.facebook.com/SpaceTrack and
http://www.twitter.com/SpaceTrackOrg

We understand that any significant upgrade has the potential to cause
frustration for our user community and we apologize if this creates
any
adjustment problems for you. For help or clarification, please email
us
at admin@space-track.org.

Thank you,
The www.Space-Track.org Team

[ANS thanks the Space-Track Team for the above information]

Mission to Mars Announcement Expected

Inspiration Mars Foundation, led by the first private space traveler,
Dennis
Tito, has announced they intend to make a major announcement next
Wednesday,
February 27th concerning a 501 day mission to Mars.

The press release said the news conference next week would be
"detailing its
plans to take advantage of a unique window of opportunity to launch an
historic
journey to Mars and back in 501 days, starting in January 2018. This
"Mission

for America" will generate new knowledge, experience and momentum for the next
great era of space exploration. It is intended to encourage all Americans to
believe again, in doing the hard things that make our nation great, while
inspiring youth through Science, Technology, Engineering and Mathematics (STEM)
education and motivation."

With the stated goal of "accelerating America's human exploration of space" one
can surmise that the mission is a human mission to Mars.

The other people who will take part in the news conference include:

- Taber MacCallum, chief executive officer and chief technology officer of
Paragon Space Development Corporation and crew member for two-year mission in
Biosphere 2

- Dr. Jonathan Clark, associate professor of Neurology and Space Medicine at
Baylor College of Medicine and space medicine advisor for the National Space
Biomedical Research Institute

- Jane Poynter, president and chairwoman of Paragon Space Development
Corporation and crew member for two-year mission in Biosphere 2

This kind of expertise in closed ecological life support systems lends credence
to a human mission to Mars.

[ANS thanks SpaceRef for the above information]

/EX

In addition to regular membership, AMSAT offers membership in the President's Club. Members of the President's Club, as sustaining donors to AMSAT Project Funds, will be eligible to receive additional benefits. Application forms are available from the AMSAT Office.

Primary and secondary school students are eligible for membership at one-half the standard yearly rate. Post-secondary school students enrolled in at least half time status shall be eligible for the student rate for a maximum of 6 post-secondary years in this status. Contact Martha at the AMSAT Office for additional student membership information.

73,
This week's ANS Editor,
Lee McLamb, KU4OS
ku4os at amsat dot org

33. Weekly Highlights of Solar and Geomagnetic Activity, 18 - 24 February 2013

Newsgroup: rec.radio.amateur.space
Date: 2013-02-25 16:30:07 UTC
From: SWPC.Webmaster@noaa.gov
Message-ID: <20130225163002.1D8BD33C3C@panix2.panix.com>
Source record: 10
Cross-posted to: rec.radio.amateur.misc,rec.radio.amateur.dx,rec.radio.amateur.space,rec.radio.shortwave,rec.radio.info

```
:Product: Weekly Highlights and Forecasts
:Issued: 2013 Feb 25 0208 UTC
# Prepared by the US Dept. of Commerce, NOAA, Space Weather Prediction Center
# Product description and SWPC contact on the Web
# http://www.swpc.noaa.gov/weekly.html
#
# Weekly Highlights and Forecasts
#
Highlights of Solar and Geomagnetic Activity
18 - 24 February 2013

Solar activity was low. 15 C-class flares were observed throughout
the week, 13 of which originated from Region 1678 (N11, L=069,
class/area=Dkc/470 on 21 Feb). This region was numbered on 18 Feb
and quickly evolved from a beta to a complex beta-gamma-delta type
magnetic configuration. By 20 Feb, it had grown to 12 times its
original size and produced the largest flare of the week, a C8/Sf at
24/1111 UTC. Region 1678 rotated off the visible disk on 23 February
as a Dko type region with beta-gamma magnetic characteristics. Over
a dozen coronal mass ejections were observed during the week. Many
of the CMEs were associated with disappearing solar filaments. An
8-degree filament erupted near N25W18 between 0147 and 0548 UTC on
the 19th. Analysis of the associated CME suggested it had an
Earth-directed component. The largest filament eruption of the week
occurred later that day when a 41 degree long filament centered near
S22W10 left the disk between 1006 and 2310 UTC. Analysis suggested
there was no earth-directed component with that CME.

No proton events were observed at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit
remained at normal levels throughout the week.

Geomagnetic field activity was at quiet levels until mid-day on 22
Feb when major storm levels were observed at high latitudes and the
planetary K-index reached unsettled levels. The increased activity
was tied to the arrival of a geoeffective coronal hole high speed
stream, possibly coupled with a transient solar wind feature. The
unsettled conditions lasted through the first period of 23 February
after which quiet activity levels prevailed.

Forecast of Solar and Geomagnetic Activity
25 February - 23 March 2013
```

Solar activity is expected to be at very low to low levels throughout the forecast period with a slight chance for an M-class event after 10 March when Region 1675 returns.

No proton events are expected at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit is expected to be at normal to moderate levels.

Geomagnetic field activity is expected to be at quiet levels through the majority of the forecast period. Unsettled levels are predicted for 01 and 21 March when recurrent coronal hole high speed streams are forecast to be geoeffective.

34. Crossposting Permitted to rec.radio.amateur.moderated

Newsgroup: rec.radio.amateur.space
Date: 2013-03-01 13:47:34 UTC
From: rram@panix.com
Message-ID: <radio/ham-radio/moderated/crossposting-1-1362145654@panix.com>
Source record: 11
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.amateur.space,rec.radio.info

```
Posted-By: auto-faq 3.3.2 beta (PGPMoose V2.0, Perl 5.005)
Archive-name: radio/ham-radio/moderated/crossposting
Revision: 1.2 2011/11/02 04:08:53
Posting-Frequency: posted quarterly
URL: http://www.panix.com/~rram/usenet/rram/index.html

Changes followed by "|".

After a 30-day public discussion and feedback period to gauge reader
opinions in March of 2009:

http://groups.google.com/group/rec.radio.amateur.moderated/browse_thread/thread/d7d337db35
f23326

the rec.radio.amateur.moderated Moderation Team had decided to consider |
amending its charter, and permit limited simultaneous crossposting to
rec.radio.amateur.moderated and one other unmoderated
amateur-radio-related discussion newsgroup. After a successful trial |
period (90 days, through early July 2009), we decided to adopt this |
change permanently. |

Approved rec.radio.amateur.* newsgroups are those that are currently
listed in the latest version of the "List of Big Eight Newsgroups" which
is crossposted monthly to news.announce.newgroups, news.groups, and
news.lists.misc.

Approved alt.radio.amateur.* and alt.ham-radio.* newsgroups are those
that have been created consistent with the suggestions in "So You Want
to Create an Alt Newsgroup" at:

http://www.faqs.org/faqs/alt-creation-guide/

Approved regional hierarchy newsgroups are those that contain either
"radio.amateur" or "ham-radio" in their names, including
uk.radio.amateur and aus.radio.amateur.misc.

We will make every reasonable effort to keep our list of approved
newsgroups up-to-date. In case we have overlooked any, and a submission
is rejected in error as a result, the rejected submitter can E-mail us
at our administrative contact address (in the signature at the bottom of
this article, and the default Reply-To for the rejection message)
requesting that it be added, and that the article be approved. We may
still choose to reject articles crossposted to any alt.* newsgroup with
an inappropriate name, including obscene language, embedded
name-calling, or encouragement of unlawful conduct.
```

Please direct any comments, questions, or criticisms to
rec-radio-amateur-moderated-request@panix.com.

35. WSR-063 AMSAT Weekly Satellite Report

Newsgroup: rec.radio.amateur.space
Date: 2013-03-02 20:24:46 UTC
From: JoAnne Maenpaa <k9jkm@comcast.net>
Message-ID: <001801ce1783$a91bf760$fb53e620$@net>
Source record: 12
Cross-posted to: rec.radio.amateur.space,rec.radio.info

```
This report is organized into four (4) parts.
Part 1 (S1) - operational analog amateur satellites
Part 2 (S2) - operational digital amateur satellites
Part 3 (S3) - non - operational satellites
Part 4 (S4) - deborbited/returned satellites

SB SAT @ AMSAT W8ISS $WSR-063.S1
WSR 063 Part 1 03/04/2013

AMSAT NEWS SERVICE BULLETIN 063.S1
FROM AMSAT HQ SILVER SPRING, MD, March 04, 2013
TO ALL RADIO AMATEURS
BID: $WSR-063.S1

PW-Sat
Catalog Number: 38083
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: On Orbit

Uplink: 435.020 MHz FM
Downlink: 145.900 MHz DSB

Beacon:

Callsign:

URL:

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=132
[02112013]
=====
DO-64 Delfi-C3
Catalog number: 32789
Launch Date: April 28, 2008 0354z
Launch site: Satish Dhawan Space Centre, India

Status: Operational
Current Mode: Science Mode - Beacon ONLY

Telemetry: 145.870 MHz

Downlink: 145.880 to 145.920 MHz
Uplink: 435.530 to 435.570 MHz
```

Delfi-C3 web page: http://www.delfic3.nl/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=68
[02112013]
=====
VO-52 HAMSAT
Catalog number: 28650
Launch Date: May 05, 2005 0444z
Launch site: Satish Dhawan Space Centre, India

Status: Operational
Current Mode: U/v - Dutch Transponder

Frequencies:
Indian Transponder:
Uplink: 435.220 to 435.280 MHz LSB/CW
Downlink: 145.930 to 145.870 MHz USB/CW

Dutch Transponder:
Uplink: 435.225 to 435.275 MHz LSB/CW
Downlink: 145.925 to 145.875 MHz USB/CW

Indian Beacon: 145.9360 MHZ CW
Dutch Beacon: 145.860 MHz 12WPM with CW message

Mode and Antenna Polarization:
V: LHCP
U: RHCP

Official Webpage: http://www.amsatindia.org/hamsat.htm

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=30

To know what transponder is switched on please listen for the beacon
that is active. Each transponder has a different beacon.
[02112013]
=====
SO-50 SAUDISAT-1C
Catalog number: 27607
Launch date: December 20, 2002 1700z
Launch site: Baikonur, Kazakhstan

Status: Operational

Current Mode: V/u

Uplink: 145.850 MHz FM - 67.0 Hz PL tone
Downlink: 436.795 MHz

Mode and Antenna Polarization:
V: Linear
U: Linear

Official Webpage: http://saudisat.kacst.edu.sa/index.shtml
(not up and running currently)

To switch the transmitter on, you need to send a CTCSS tone of 74.4
Hz. The order of operation is thus: (allow for Doppler as necessary):
1) Transmit on 145.850 MHz with a tone of 74.4 Hz to arm the 10 minute
timer on board the spacecraft.
2) Now transmit on 145.850 MHz (FM Voice) using 67.0 Hz to PT the re-
peater on and off within the 10 Minute window.
3) Sending the 74.4 tone again within the 10 minute window will reset
the 10 minute timer.
[02112013]
=====
FO-29 JAS-2
Catalog number: 24278
Launch Date: August 17, 1996

Status: Operational
Current Mode: V/u (Mode JA)

Voice/CW (Mode JA)
Uplink: 145.90 to 146.00 MHz CW/LSB
Downlink: 435.80 to 435.90 MHz CW/USB
Beacon: 435.795 MHz

Digital Mode JD
Uplinks: 145.850 MHz FM
145.870 MHz FM
145.910 MHz FM
Downlink: 435.910 MHz 1200-baud BPSK or 9600-baud FSK
Callsign: 8J1JCS
Digitalker: 435.910 MHz

Mode and Antenna Polarization:
V: RHCP
U: RHCP

For current operational schedule for FO-29:
http://www.ne.jp/asahi/m-arai/gkz/satinfo/fo29e.htm

JARL English webpage:
http://www.jarl.or.jp/English/5_Fuji/ejasmenu.htm

AMSAT-NA Webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID
=5&retURL=/satellites/status.php

Mineo Wakita, JE9PEL, has created a simple decoder program for FO29's
CW telemetry downlink: http://www.ne.jp/asahi/hamradio/je9pel/
fo29cwts.htm
[02112013]
=====
AO-7 AMSAT OSCAR 7
Catalog number: 07530

Launch Date: November 15, 1974
Launch site: Vandenberg AFB, California, USA

Status: Operational

Current Mode: Alternating between Mode A and B every 24 hours

Uplink: 145.850 to 145.950 MHz CW/USB Mode A
432.125 to 432.175 MHz CW/LSB Mode B
Downlink: 29.400 to 29.500 MHz CW/USB Mode A (1W PEP)
145.975 to 145.925 MHz CW/USB Mode B (8W PEP)
145.975 to 145.925 MHz CW/USB Mode C (2W PEP)
Beacons: 29.502 MHz CW
145.972 MHz CW
435.100 MHz CW
2304.100 MHz CW

Official Webpage:
http://www.amsat.org/amsat-new/satellites/sat_summary/ao7.php
[02112013]
=====
INTERNATIONAL SPACE STATION (ISS) - ARISS
Catalog number: 25544
Launch date: November 20, 1998 0640z (ZARYA module)
Launch sites: Baikonur, Kazakhstan
Kourou, French Guiana
Uchinoura Space Center, Japan
Kennedy Space Center, Titusville, Florida, USA

Status: Operational

Current Active Modes: FM Repeater - OFF
Voice - V/v
BBS - V/v
2m APRS - V/v
2m Digi - V/v
70cm APRS - ?
70cm Digi - ?
SSTV - V/v

Expedition 34 Crew (November 2012 - March 2013):
Commander: Kevin Ford KF5GPP
Flight Engineer: Oleg Novitskiy
Flight Engineer: Evgeny Tarelkin
Flight Engineer: Roman Romanenko
Flight Engineer: Chris Hadfield KC5RNJ/VA3OOG
Flight Engineer: Tom Marshburn KE5HOC

Available Modes and Frequencies:
Digital/APRS:
Worldwide 2m packet uplink: 145.825 MHz FM 1k2
Worldwide 2m packet downlink: 145.825 Mhz FM 1k2
Worldwide 70cm packet uplink: 437.550 Mhz FM 1k2

Worldwide 70cm packet downlink: 437.550 Mhz FM 1k2

Voice:
Region 1 voice uplink: 145.200 MHz FM
Region 2/3 voice uplink: 144.490 MHz FM
Worldwide downlink: 145.800 MHz FM

Crossband Repeater:
Repeater Uplinks: 1269.650 MHz FM
437.800 MHz FM
145.990 MHz FM - 67.0 PL (Kenwood)
Repeater Downlink: 145.800 MHz FM
437.800 MHz FM (Kenwood)

SSTV Robot 36:
Downlink: 145.800 MHz FM

Mode and Antenna Polarization:
V: Linear
U: Linear

Callsigns:
Belgian: OR4ISS
German: DP0ISS
Russian: RS0ISS
RZ3DZR
United States: NA1SS
2m Packet Mailbox: RS0ISS-11
2m Digipeater alias: ARISS
70cm Packet Mailbox: RS0ISS-1
70cm Digipeater callsign: RS0ISS
70cm Digipeater alias: ARISS

Official ARISS Webpage: http://www.rac.ca/ariss
ISS Fan Club Webpage: http://www.issfanclub.com
APRS tracking page: http://www.ariss.net/

ISS Daily Crew Schedule: http://spaceflight.nasa.gov/station/timelines
Remember that the crew operates on UTC time. Also, all of the time
line is NOT translated from Russian and posted.
[02112013]
NNNN
/EX

SB SAT @ AMSAT W8ISS $WSR-063.S2
WSR 063 Part 2 03/04/2013

AMSAT NEWS SERVICE BULLETIN 063.S2
FROM AMSAT HQ SILVER SPRING, MD, March 04, 2013
TO ALL RADIO AMATEURS
BID: $WSR-063.S2

STRaND-1
Catalog Number:
Launch Date: February 25, 2013 12:31z
Launch Site: Satish Dhawan Space Centre, India

Status: Operational

Uplink:
Downlink:437.568MHz 9k6 FSK

Beacon: None(?)

Callsign:

URL: http://www.sstl.co.uk/Missions/STRaND-1--Launched-2013
[03042013]
=====
Fitsat-1
Catalog number: 38853
Launch Date: October 04, 2012
Launch site: Kibo Japanese Experiment Module, International Space
Station

Status: Operational

Uplink:
Downlink(s): 437.445MHz 1k2 AFSK
5840.00 MHz 115k2 data
LED CW (200w pulses)

Beacon(s): 437.250 MHz CW

Callsign: NIWAKA

URL: http://carpcomm.com/satellite/fitsat1
[10292012]
=====
TechEdSat
Catalog number: 38854
Launch date: October 04, 2012
Launch site: Kibo Japanese Experiment Module, International Space
Station

Uplink(s):
Downlink(s): 437.465 1k2 AFSK

Beacon(s):

Callsign:

URL:http://www.techedsat.com/
[10152012]
=====
We Wish
Catalog number: 38856
Launch date: October 04,2012

Launch Site: Kibo Japanese Experiment Module, International Space
Station

Uplink(s):
Downlink(s): 437.505MHz 1k2 AFSK
437.505MHz SSTV

Beacon(s): 437.505MHz CW

Callsign: JQ1ZIJ

URL:
[10152012]
=====
F-1
Catalog number: 38855
Launch Date: October 04, 2012
Launch Site: Kibo Japanese Experiment Module, International Space
Station

Uplink(s):
Downlink(s): 145.980MHz 1k2 AFSK
437.485MHz FM moduled CW

Baecon(s):

Callsign: XV1VN

URL: http://fspace.edu.vn/
[10152012]
=====
Aeneas
Catalog Number: 38760
Launch Date: September 13, 2012 2139z
Launch Site: Wallops Island, Virginia, USA

Status: On Orbit

Uplink: WiFi 2425MHz
Downlink:
WiFi: 2425MHz
Spread Spectrum: Somewhere in the 70cm band

Beacon: 437.600MHz 1k2 ax25 every 10 seconds

Callsign:

URL:
[10012012]
=====
CSSWE (Colorado Student Space Weather Experiment)
Catalog Number: 38761
Launch Date: September 12, 2012 2139z
Launch Site: Wallops Island, Virginia, USA

Status: On Orbit

Uplink:
Downlink: 437.345MHz 9k6 with ax.25

Beacon:

Callsign:

URL:
[10012012]
=====
CP5 (Polysat)
Catalog Number: 38763
Launch Date: September 12, 2012 2139z
Launch Site: Wallops Island, Virginia, USA

Status: On Orbit

Uplink:
Downlink: 437.405MHz AFSK on LSB ax.25 over NRZI at 1k2 baud,
every 2
minutes, begins 3.5 hours after first turn-on

Beacon:

Callsign:

URL:
[10012012]
=====
CXBN (Cosmic X-Ray Background Nanosatellite)
Catalog Number: 38762
Launch Date: September 12, 2012 2139z
Launch Site: Wallops Island, Virginia, USA

Status: On Orbit

Uplink:
Downlink: 437.525MHz GFSK ax.25

Beacon:

Callsign:

URL:
[10012012]
=====
Proiteres
Catalog Number: 38756
Launch Date: September 09, 2012 2139z
Launch Site: Satish Dhawan Space Centre, India

Status: On Orbit

Uplink:
Downlink: 437.485MHz FM/AFSK

Beacon:

Callsign: JL3YZK

URL:
[10012012]
=====
RS-40 MiR (Yubileiny-2)
Catalog Number: 38735
Launch Date: July 28, 2012
Launch Site: Plesetsk Missile and Space Complex, Russia

Status: On Orbit

Uplink:
Downlink(s): 435.265 MHz
435.365 MHz

Beacon:

Callsign:

URL:
[08272012]
=====
HORYU-II
Catalog number: 38340
Launch Date: May 17, 2012 1639z

Status: On Orbit

Uplink: 145.??? MHz
Downlink: 437.375 MHz CW/AX25/FSK

Beacon: 437.375 MHz CW

Callsign: JG6YBW

URL:

IARU Coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=216
[10012012]
=====
XaTcobeo
Catalog Number: 38082
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: Operational

Uplink:
Downlink: 437.365 MHz FFSK with AX.25

Beacon:

Callsign:

URL:

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=135
[100162012]
=====
UniCubeSat
Catalog Number: 38085(?)
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: Operational

Uplink:
Downlink: 437.305 MHz 9k6 bps GMSK

Beacon:

Callsign:

URL:
http://www.gaussteam.com/index.php?option=com_content&view=article&id=
96:unicu
besat&catid=36:unicubesat&Itemid=183

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=133
[10012012]
=====
Robusta
Catalog Number: 38083(?)
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: On Orbit

Uplink:
Downlink: 437.325 MHz 1k2 FM telemetry (data every 3 min, 20 sec.
burst)

Beacon:

Callsign:

URL:

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=122
[10012012]
=====
MO-72 MaSat-1
Catalog Number: 38081

Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: Operational

Uplink:
Downlink: 437.345 MHz GFSK 625/1250 bps
437.345 MHz CW

Beacon:

Callsign:

URL:

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=126
[10012012]
=====
Goliat
Catalog Number: 38084(?)
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: Operational

Uplink:
Downlink: 437.485 MHz 1k2 AFSK

Beacon:

Callsign:

URL:

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=98
[10012012]
=====
E-St@r
Catalog Number: 38079
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: On Orbit

Uplink:
Downlink: 437.445 MHz 1k2 bps AFSK

Beacon:

Callsign:

URL:

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=130
[10012012]
=====
ALMASat-1
Catalog Number: 38078
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: On Orbit

Uplink:
Downlink: 437.465 MHz 1k2 bps FSK
2407.850 MHz

Beacon:

Callsign:

URL:

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=39
[10012012]
=====
RS-39 Chibis-M
Catalog Number: 38051
Launch Date: October 30, 2011 10:11:00 UTC
Launch site: Tyuratam (Baikonur Cosmodrome), Kazakhstan

Status: Operational

Uplink:
Downlink:

Beacon: 435.315 MHz CW
435.215 MHz CW

Callsign:

URL:

IARU coordination status page:
[07302012]
=====
JUGNU
Catalog Number: 37839
Launch Date: October 12, 2011 05:30:00 UTC
Launch site: Satish Dhawan Space Centre, India

Status: On Orbit

Uplink: 145.??? MHz 1k2 (mode?)
Downlink: 437.505 MHz 9k6 (mode?)

Beacon: 437.275 MHz 15 wpm (?) CW

Callsign:

URL: http://www.iitk.ac.in/me/jugnu/index.htm

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=160
[07092012]
=====
SRMSAT
Catalog Number: 37841
Launch Date: October 12, 2011 05:30:00 UTC
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Uplink: 145.900 MHz 1k AX.25 (speed?)
Downlink: 437.500 MHz 2k4 AX.25

Beacon: 437.425 MHz 12 wpm CW

Callsign:

URL: http://srmsat.in/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=181
[01282013]
=====
HRBE (E1P Explorer 1 [Prime] CubeSat (E1P-U2))
Catalog Number: 37855
Launch Date: October 28, 2011
Launch site: Vandenberg Air Force Base, California, USA

Status: On Orbit

Uplink: 437.305 MHz (???)
Downlink: 437.505 MHz AX.25 (SSB?)

Beacon:

Callsign:

URL: http://ssel.montana.edu/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=116
[01122012]
=====
M-Cubed
Catalog Number: 37855
Launch Date: October 28, 2011
Launch site: Vandenberg Air Force Base, California, USA

Status: On Orbit

Uplink:
Downlink: 437.485 MHz AX.25

Beacon:

Callsign:

URL: http://umcubed.org/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=215
[01122012]
=====
RAX-2
Catalog Number: 37853
Launch Date: October 28, 2011
Launch site: Vandenberg Air Force Base, California, USA

Status: Operational

Uplink:
Downlink: 437.345MHz 9k6 GMSK

Beacon:

Callsign:

URL: http://rax.engin.umich.edu//

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=221
[03232012]
=====
AO-71 AubieSat-1
Catalog Number: 37854
Launch Date: October 28, 2011
Launch site: Vandenberg Air Force Base, California, USA

Status: On Orbit

Uplink:
Downlink: 437.475 MHz 1k2 AX.25

Beacon: 437.475 MHz CW

Callsign: KI4NQO

URL: http://www.space.auburn.edu/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=148
[12262011]
=====
O/OREOS
Catalog Number: 37224
Launch Date: November 20, 2010

Launch site: Kodiak Launch Complex, Alaska, USA

Status: On Orbit

Uplink:
Downlink: 437.035 MHZ AX.25

Beacon:

Callsign:

URL: http://www.ooreos.org/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=146
[02092011]
=====
Rax-1 Radio Aurora Explorer
Catalog Number: 37223
Launch Date: November 20, 2010
Launch site: Kodiak Launch Complex, Alaska, USA

Status: On Orbit

Uplink:
Downlink: 437.505 MHz 9k6 GMSK

Beacon:

Callsign: RAX-1

URL: http://rax.engin.umich.edu/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=165
[02092011]
=====
FO-69 Fastrac-1 Sara Lily
Catalog Number: 37227
Launch Date: November 20, 2010
Launch site: Kodiak Launch Complex, Alaska, USA

Status: Operational

Uplink 1: 145.980 MHz 1k2 baud
Uplink 2: 145.825 MHz 1k2 baud
Downlink: 437.345 MHz 1k2 and 9k6 baud

Beacon: 437.435 MHz 1k2 AX.25

Callsign: Fast1

URL: http://fastrac.ae.utexas.edu/index.php

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=83

[07052011]
=====
FO-70 Fastrac-2 Emma
Catalog Number: 37380
Launch Date: November 20, 2010
Launch site: Kodiak Launch Complex, Alaska, USA

Status: Operational

Uplink 1: 435.025 MHz 1k2 baud
Uplink 2: 437.435 MHz 9k6 baud
Downlink: 145.825 MHz 1k2 and 9k6 baud

Beacon: 145.825 MHz 1k2 AX.25

Callsign: Fast2

URL: http://fastrac.ae.utexas.edu/index.php

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=84
[12162011]
=====
StudSat
Catalog Number: 36796
Launch Date: July 12, 2010 0352z
Launch site: Satish Dhawan Space Centre, India

Status: On Orbit

Uplink: 437.505MHz, 9600bps FSK
Downlink: 437.505MHz, 9600bps FSK
Beacon : 437.505MHz, 20bps ASK

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=164
[02092011]
=====
TIsat-1
Catalog Number: 36799
Launch Date: July 12, 2010 0352z
Launch site: Satish Dhawan Space Centre, India

Status: On orbit

Callsign: HB9DE

Uplink: 145.980MHz FM, AFSK
Downlink: 437.305MHz FM, AFSK
Beacon: 437.305MHz CW

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=118
[02092011]

=====
SwissCube
Catalog Number: 35932
Launch Date: September 23, 2009 0621z
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Callsign: HB9EG

Beacon(100mw): 437.5050MHz CW
Beacon(1w): 437.5050MHz FSK 1k2bps

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=109
[02092011]
=====
UWE-2
Catalog Number: 35934
Launch Date: September 23, 2009 0621z
Launch site: Satish Dhawan Space Centre, India

Status: In Orbit

Beacon(500mw): 437.3850 MHz AFSK 1k2bps
437.3850 MHz FSK 9k6bps

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=110
[02092011]
=====
ITUpsAT1
Catalog Number: 35935
Launch Date: September 23, 2009 0621z
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Beacon(100mw): 437.325MHz CW
Beacon(1w): 437.325MHz 19k2bps

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=113
[02092011]
=====
BEESAT
Catalog Number: 35933
Launch Date: September 23, 2009 0621z
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Callsign: DP0BEE

Beacon(100mw): 436.000MHz CW
Beacon(500mw): 436.000MHz GMSK 4k8bps
Beacon(500mw): 436.000MHz GMSK 9k6bp
[02092011]
=====
SOHLA-1 (ASTRO TECH.)
Catalog Number: 33496
Launch Date: January 23, 2009 0354z
Launch site: Tanegashima Space Center, Japan

Status: Operational

Proposed Frequencies and Modes:
Downlink: 437.505 MHz AFSK/CW
Beacon: 437.505 MHz AFSK/CW

Callsign:

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=101
[02092011]
=====
KAGAYAKI (Solan Co.)
Catalog Number: 33495
Launch Date: January 23, 2009 0354z
Launch site: Tanegashima Space Center, Japan

Status: In Orbit

Downlink: 437.375 MHZ FSK9k6/CW
Beacon: 437.375 MHz FSK9k6/CW

IARU coordination status page:

AMSAT-NA webpage:

[02092011]
=====
STARS (Kagawa Univ.) (Twin Satellites)
Catalog Number: 33498
Launch Date: January 23, 2009 0354z
Launch site: Tanegashima Space Center, Japan

Status: Operational ?

Downlinks: 437.485 MHz FM/CW
437.465 MHz FM/CW
Beacons: 437.305 MHz FM/CW
437.275 MHz FM/CW

Callsigns: JR5YBN
JR5YBO

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=99

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=121&retURL
=/satellites/status.php
[02092011]
=====
KKS-1 (Tokyo MCIT)
Catalog Number: 33499
Launch Date: January 23, 2009 0354z
Launch site: Tanegashima Space Center, Japan

Status: Operational

Downlink: 437.455 MHz AFSK/CW
Beacon: 437.385 MHz AFSK/CW

Callsign: JQ1YYY

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=107

AMSAT-NA webapge:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=120&retURL
=/satellites/status.php
[20092011]
=====
PRISM (Tokyo Univ.)
Catalog Number: 33493
Launch Date: January 23, 2009 0354z
Launch site: Tanegashima Space Center, Japan

Status: Operational

Uplink: 145.xxx MHz AFSK 1k2
Downlink: 437.425 MHz AFSK 1k2
Beacon: 437.250 MHz CW

Callsign: JQ1YCX

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=97

Read terms and conditions of operations at the PRISM web page to find
out how
to properly operate on the satellite and to get the uplink frequency.
It
has
been asked that the uplink frequency not be given out untik you have
read and
understood the terms of usage.

URL:
http://www.space.t.u-tokyo.ac.jp/prism/en/HAMservice.html
[10282012]
=====
RS-30 Radio Sputnik 30 (Yubileiny)

Catalog Number: 32953
Launch Date: May 23, 2008 1520z
Launch site: Plesetsk Missile and Space Complex, Russia

Status: Operational

Curent Modes: Telemetry
Audio
Images

Downlinks: 435.315 MHz
435.215 MHz

AMSAT-NA website:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=115&ret
URL=/satellites/status.php

Official website:
http://www.npopm.com/?cid=leoca&caid=43
[02092011]
=====
CanX-2
Catalog number: 32790
Launch Date: April 28, 2008 0354z
Launch site: Satish Dhawan Space Centre, India

Status: Operational in range of ground station only

Downlink: 437.478 MHz GFSK

For the latest project status update please visit the Can X-2 web
page: http://www.utias-sfl.net/nanosatellites/CanX2/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=46
[02092011]
=====
AAUSAT-II
Catalog number: 32788
Launch Date: April 28, 2008 0354z
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Downlink: 437.425 MHz 1k2 baud packet

For the latest project status update please visit the AAUSAT-II web
page:
http://www.aausatii.aau.dk/homepage/index.php?language=en&page=home

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=60
[02092011]
=====

CO-65 CUTE-1.7+APD II
Catalog number: 32785
Launch Date: April 28, 2008 0354z
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Downlink: 437.475 MHz 9k6 Packet
Uplink: 1267.600 Mhz

Telemetry Beacon:
Downlink: 437.2750 MHz CW

For the latest project status update please visit the Cute-1.7+APD II
web page: http://lss.mes.titech.ac.jp/ssp/cute1.7/index_e.html

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=78

Command Station blog website:
http://lss.mes.titech.ac.jp/ssp/cute1.7/blog/

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=112&retURL
=/satellites/status.php
[03232012]
=====
Compass-1
Catalog number: 32787
Launch Date: April 28, 2008 0354z
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Current Mode: dependant on last received command

Uplink: 145.980 MHz FM
Downlink: 437.275 Mhz CW
437.405 MHz Packet

For the latest project status update please visit the Compass 1 web
page: http://www.raumfahrt.fh-aachen.de/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=52

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=114&retURL
=/satellites/status.php
[06162011]
=====
CO-66 Seeds II
Catalog number: 32791
Launch Date: April 28, 2008 0354z

Launch site: Satish Dhawan Space Centre, India

Status: Operational

Downlink: 437.485 MHz

Callsign: JQ1YGU

For the latest project status update please visit the Seeds 2 web
page: http://cubesat.aero.cst.nihon-u.ac.jp/english/seeds_2_e.html

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=36

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=113&retURL
=/satellites/status.php
[073092011]
=====
CAPE-1
Catalog Number: 31130
Launch Date: April 17,2007 0702z
Launch site: Baikonur, Kazakhstan

Status: Intermittent

Current Mode: /u

TLM Downlink: 435.245 MHz 9600 bs FSK AX.25
CW Beacon: 435.245 MHz CW

Callsign: K5USL

TLM and CW interchange every 30 seconds.

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=94&retURL=
/satellites/status.php

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=72
[02092011]
=====
CP3
Catalog Number: 31129
Launch Date: April 17,2007 0702z
Launch site: Baikonur, Kazakhstan

Status: Operational

Current Mode: /u

Downlink: 436.845 MHz 1200 bps AFSK AX.25

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=74

[02092011]
=====
CO-58 CubeSat XI-V
Catalog number: 28895
Launch Date: October 27, 2005 0652z
Launch site: Plesetsk Missile and Space Complex, Russia

Status: Operational - CW Beacon only

Current Mode: /u

Telemetry Downlink: 437.4250 MHz AFSK 1200bps using AFK protocol
Beacon: 437.2750 MHz CW

Callsign: JQ1YGW

Official Webpage: http://www.space.t.u-tokyo.ac.jp/cubesat/mission/V/

Pictures received by Mineo Wakita - JE9PEL:
http://www.ne.jp/asahi/hamradio/je9pel/xivpicte.htm

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=37
[02092011]
=====
CO-57 CubeSat XI-IV
Catalog number: 27848
Launch date: June 30, 2003 1415z
Launch site: Plesetsk Missile and Space Complex, Russia

Status: ?????

Current Mode: /u

Beacon: 436.8475 MHz CW
Telemetry : 437.4900 MHz AFSK 1200 BPS

Callsign: JQ1YGW

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=96&retURL
=/satellites/status.php

Official Webpage: http://www.space.t.u-tokyo.ac.jp/cubesat/mission/V/
[02092011]
=====
QuakeSat
Catalog Number: 27845
Launch Date: June 30, 2003 1415z
Launch site: Plesetsk Missile and Space Complex, Russia

Status: Telemetry only

Current Mode: 9600 baud data packet

Mode U packet
Downlink: 436.675 MHz 9k6 BPS

Quakesat webpage:
http://www.quakefinder.com/services/quakesat-ssite/
[02252011]
=====
CO-55 Cute-1.7+APD II
Catalog Number: 27844
Launch date: June 30, 2003 1415z
Launch site: Plesetsk Missile and Space Complex, Russia

Status: Operational

Current Mode: CW downlink worldwide
AX25 Packet with uplink command over Japan only

Mode U Telemetry
Downlink: 437.4000 MHz AFSK 1200 BPS

Mode U TLM Beacon
Downlink: 436.8375 MHz CW

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=69&retURL
=/satellites/status.php

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=78
[02092011]
=====
NO-44 PCSAT
Catalog number: 26931
Launch Date: September 30, 2001 0240z
Launch site: Kodiak Launch Complex, Alaska, USA

Status: Operational

Current Mode: V/v

General Usage Uplink/Downlink: 145.827 MHz 1200 Baud
Special Usage Downlink: 144.390 Mhz 1200 Baud

PCSAT APRS page: http://pcsat.aprs.org

aprstlm Telemetry Decoder program:
http://www.xciv.org/~iain/aprstlm/v1.2/
[10292012]
=====
RS-22 RADIO SPORT 22 (MOZHAYETS 4)
Catalog number: 27939
Launch Date: September 27, 2003 0612z
Launch site: Plesetsk Missile and Space Complex, Russia

Status: Operational - 70cm cw only

Current Mode: /u

CW Beacon - 435.352 MHz
145.818 MHz

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=76&retURL
=/satellites/status.php
[02092011]
=====
LO-19 LUSAT
Catalog number: 20442
Launch date: January 22, 1990
Launch site: Kourou, French Guiana

Status: CW Beacon only

Uplinks: 145.840 MHz 1200-baud Manchester FSK
145.860 MHz 1200-baud Manchester FSK
145.880 MHz 1200-baud Manchester FSK
145.900 MHz 1200-baud Manchester FSK

CW downlink: 437.125 MHz

Digital downlink: 437.150 MHz SSB (RC-BPSK 1200-baud PSK)

Broadcast Callsign: LUSAT-11
BBS: LUSAT-12

General information and telemetry samples can be found at:
www.telecable.es/personales/ea1bcu
[02092011]
=====
UO-11 OSCAR-11
Catalog number: 14781
Launch Date: March 1, 1984
Launch site: Vandenburg AFB, California, USA

Status: Operational ?

Current Mode: /v

Telemetry Downlink: 145.825 MHz FM 1200 AFSK
UHFBeacon: 435.025 MHz
Mode-S Beacon: 2401.500 MHz

Mode and Antenna Polarization:
V: RHCP
S: LHCP

Webpage: http://www.users.zetnet.co.uk/clivew/
MPEG3 files: http://www.ne.jp/asahi/hamradio/je9pel/uo11tlme.htm
[07052011]
=====
INTERNATIONAL SPACE STATION (ISS) - ARISS

Catalog number: 25544
Launch date: November 20, 1998 0640z (ZARYA module)
Launch sites: Baikonur, Kazakhstan
Kourou, French Guiana
Uchinoura Space Center, Japan
Kennedy Space Center, Titusville, Florida, USA

Status: Operational

Current Active Modes: FM Repeater - OFF
Voice - V/v
BBS - V/v
2m APRS - V/v
2m Digi - V/v
70cm APRS - ?
70cm Digi - ?
SSTV - V/v

Expedition 34 Crew (November 2012 - March 2013):
Commander: Kevin Ford KF5GPP
Flight Engineer: Oleg Novitskiy
Flight Engineer: Evgeny Tarelkin
Flight Engineer: Roman Romanenko
Flight Engineer: Chris Hadfield KC5RNJ/VA3OOG
Flight Engineer: Tom Marshburn KE5HOC

Available Modes and Frequencies:
Digital/APRS:
Worldwide 2m packet uplink: 145.825 MHz FM 1k2
Worldwide 2m packet downlink: 145.825 Mhz FM 1k2
Worldwide 70cm packet uplink: 437.550 Mhz FM 1k2
Worldwide 70cm packet downlink: 437.550 Mhz FM 1k2

Voice:
Region 1 voice uplink: 145.200 MHz FM
Region 2/3 voice uplink: 144.490 MHz FM
Worldwide downlink: 145.800 MHz FM

Crossband Repeater:
Repeater Uplinks: 1269.650 MHz FM
437.800 MHz FM
145.990 MHz FM - 67.0 PL (Kenwood)
Repeater Downlink: 145.800 MHz FM
437.800 MHz FM (Kenwood)

SSTV Robot 36:
Downlink: 145.800 MHz FM

Mode and Antenna Polarization:
V: Linear
U: Linear

Callsigns:
Belgian: OR4ISS
German: DP0ISS
Russian: RS0ISS
RZ3DZR
United States: NA1SS
2m Packet Mailbox: RS0ISS-11
2m Digipeater alias: ARISS
70cm Packet Mailbox: RS0ISS-1
70cm Digipeater callsign: RS0ISS
70cm Digipeater alias: ARISS

Official ARISS Webpage: http://www.rac.ca/ariss
ISS Fan Club Webpage: http://www.issfanclub.com
APRS tracking page: http://www.ariss.net/

ISS Daily Crew Schedule: http://spaceflight.nasa.gov/station/timelines
Remember that the crew operates on UTC time. Also, all of the time
line is NOT translated from Russian and posted.
[12242012]
NNNN
/EX

SB SAT @ AMSAT W8ISS $WSR-063.S3
WSR 063 Part 3 03/04/2013

AMSAT NEWS SERVICE BULLETIN 063.S3
FROM AMSAT HQ SILVER SPRING, MD, March 04, 2013
TO ALL RADIO AMATEURS
BID: $WSR-063.S3

THE FOLLOWING ARE IN ORBIT BUT ARE NON-OPERATIONAL AT THIS TIME:

NANOSAIL-D
Catalog Number: 37361
Ejection Date: January 17, 2011

Status: Non - Operational

Downlink: 437.270 MHz AX.25

URL: http://nanosaild.engr.scu.edu/dashboard.htm

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=115
[07302012]
=====
HO-68 HOPE-1 (CAS-1) (XW-1)
Catalog Number: 36122
Launch Date: December 15, 2009 0231z
Launch site: Taiyuan Space Center, PRC

Status: Telemetry only

Callsign:
Broadcast: BJ1SA-11
BBS: BJ1SA-12

Uplinks: 145.8250 MHz FM, PL 67.0 Hz.
145.9250 - 145.9750 MHz SSB/CW
145.8250 MHz AFSK 1200 BPS
Downlinks: 435.6750 MHz FM
435.7650 - 435.7150 MHz SSB/CW
435.6750 MHz AFSK 1200 BPS

Beacon: 435.7900 MHz CW

Mode and Antenna Polarization:
V: LHCP 2.0dBi max
U: RHCP 3.0dBi max

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=108

For more information about XW-1 (CAS-1):
http://
[04302012]
=====
SO-67 SumbandilaSat
Catalog Number: 35870
Launch Date: September 17, 2009 1555z
Launch site: Baikonur, Kazakhstan

Status: Non - Operational

Callsign: ZS0SUM

Uplink: 145.875MHz FM tone 233.6 Hz
Downlink: 435.345MHz FM

Mode and Antenna Polarization:
V: Linear
U: Linear

For more information about SO-67:
http://www.amsatsa.org.za/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=88
[01272012]
=====
CP4
Catalog Number: 31132
Launch Date: April 17, 2007

Status: Non-Operational

Current Mode: /u

TLM Downlink: 437.325 MHz 1200 bps FSK AX.25
CW Beacon: 437.325 MHz CW

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=79
[09062010]
=====
LIBERTAD-1
Catalog Number: 31128
Launch Date: April 17, 2007

Status: Non-Operational

Current Mode: V/u APRS Packet ax25

Callsign: 5K3L

Uplink: 145.825 MHz 1200 AFSK ax25 APRS
Downlink: 437.399 MHz 1200 AFSK ax25 APRS

Telemetry Beacon: 437.4050 MHz 1200 AFSK ax25

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=76
[09062010]
=====
PO-63 PEHUENSAT-1
Catalog Number: 29712
Launch Date: January 10, 2007

Status: Non-Operational

Current Mode: V/v

Uplink/Downlink: 145.825 Mhz FM
Voice Recorder: 145.825 Mhz FM

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=51
[09062010]
=====
NCUBE-2
Catalog number: 28897
Launch Date: October 27, 2005

Status: Still attached to XO-53 (SSETI)?

Proposed Callsign: TBA
Proposed Transmit Frequency: 437.305
2407.250

Official Website: http://www.ncube.no

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=24
[09062010]

=====
XO-53 SSETI
Catalog number: 28894
Launch Date: October 27, 2005

Status: Non-operational

Voice Uplink: 437.250 MHz FM 67Hz CTCSS
Voice Downlink: 2401.835 MHz FM
Packet Up/Downlink: 437.250 MHz 9k6 packet
Packet Downlink 2401.835 MHz 38k4 packet

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=54
[09062010]
=====
UWE-1
Catalog Number: 28892
Launch Date: October 27, 2005

Status: Non-Operational

Mode U Telemetry
Downlink: 437.5050 MHz 9600 AFSK

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=53
[09062010]
=====
AO-51 ECHO
Catalog number: 28375
Launch date: June 29, 2004 0745z
Launch site: Baikonur, Kazakhstan

Status: Non - Operational

Current Mode(s):
Voice repeater: V/u
Uplink: 145.880 MHz FM
Downlink: 435.150 MHz FM

Telemetry: Recovery efforts
Downlink: 435.150MHz 9k6

Analog voice downlink: 435.300 MHz FM
435.150 MHz FM
2401.200 Mhz FM
Analog voice uplink: 145.860 MHZ FM
145.880 MHz USB
145.880 MHz FM
145.920 MHz FM
145.920 MHz FM - 67 Hz PL tone burst
1268.705 MHz FM

Digital Downlinks: 435.150 MHz FM 38k4 PBP, 1 watt output
435.150 MHz FM 9k6 Pacsat Broadcast
Protocol
2401.200 MHz FM 38k4 bps, AX.25
Digital Uplink: 145.860 MHz FM 9k6 Pacsat Broadcast
Protocol
1268.703 mhz FM 9k6 Pacsat Broadcast
Protocol
Beacon: 435.150 MHz

Mode and Antenna Polarization:
T: Linear
V: Linear
U: TX A (usually digital)LHCP
TX B (usually analog) RHCP
L: Linear
S: Linear

Broadcast: PECHO-11
BBS: PECHO-12

Official Webpage: http://www.amsat.org/amsat-new/echo/CTNews.php

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=19
[12062011]
=====
CANX-1
Catalog Number: 27847
Launch Date: June 30, 2003

Status: Non-Operational

Downlink: 437.8800 MHz AFSK 1k2bps
[06052009]
=====
DTUSAT
Catalog Number: 27842
Launch Date: June 30, 2003

Status: Non-Operational

Current Mode: 2k4 AFSK Packet last reported

Downlink: 437.475MHz

Officail webpage: http://dtusat1.dtusat.dtu.dk/

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=101&retURL
=satellites/all_oscars.php
[02212009]
=====
AO-49 AATiS OSCAR-49 (SAFIR-M)

Catalog number: 27605
Launch Date: December 20, 2002

Status: Non-operational.

Uplink: 435.275 MHz 1200-baud AFSK
Downlink: 145.825 MHz 9600-baud FSK
(optional voice message)

Broadcast callsign: DP0AIS

Official webpage: http://amend.gmxhome.de
[01222007]
=====
MO-46 TIUNGSAT-1
Catalog number: 26548
Launch date: September 26, 2000

Status: Telemetry only

Uplinks: 145.850 MHz
145.925 MHz 9600-baud FSK
Downlink: 437.325 MHz

Broadcast callsign: MYSAT3-11
BBS: MYSAT3-12

TiungSat-1 is Malaysia's first micro-satellite and in addition to
commercial land and weather imaging payloads offers FM and FSK
Amateur Radio communication.

TiungSat-1, named after the mynah bird of Malaysia, was developed as
a collaborative effort between the Malaysian government and Surrey
Satellite Technology Ltd.
[03302009]
=====
NO-45 SAPPHIRE
Catalog number: 26932
Launch Date: September 30, 2001

Status: Non-Operational

Downlink: 437.095 MHz 1200 baud AX-25 AFSK
Uplink: 145.945 MHz UI Digipeater
Digi Callsign: KE6QMD

Everyone is welcome to use the digipeating/APRS features of Sapphire,
as per the user service agreement located at the following URL:
http://web.usna.navy.mil/~bruninga/pcsat/contract.txt
[03132005]
=====
SO-42 SAUDISAT-1B
Catalog number: 26549
Launch date: September 26, 2000

Status: Non-Operational

Downlink: 437.075 MHz

Broadcast Callsign: SASAT2-11
BBS: SASAT2-12

Further information is available at:
http://www.amsat.org/amsat/sats/n7hpr/so42.html
[01222007]
=====
SO-41 SAUDISAT-1A
Catalog number: 26545
Launch Date: September 26, 2000

Status: Non-Operational

Uplink: 145.850 MHz
Downlink: 436.775 MHz

Broadcast Callsign: SASAT1-11
BBS: SASAT1-12

Further information is available at:
http://www.amsat.org/amsat/sats/n7hpr/so41.html
[01222007]
=====
AO-40 AMSAT OSCAR 40
Catalog number: 26609
Launch Date: November 16, 2000

Status: Non-Operational

Uplinks

V-band: 145.840 - 145.990 MHz CW/LSB
U-band: 435.550 - 435.800 MHz CW/LSB
L1-band: 1269.250 - 1269.500 MHz CW/LSB
L2-band: 1268.325 - 1268.575 MHz CW/LSB

Downlinks

S2-band: 2401.225 - 2401.475 MHz CW/USB
K-band: 24048.010 - 24048.060 MHz CW/USB
Beacon: 2401.323 MHz
24048.035 MHz

P3-D Telemetry Beacons (IHU)

BEACON General Beacon(GB) Middle Beacon(MB) Engineering Beacon(EB)
2 m none 145.898 MHz none
70cm 435.438 MHz 435.588 MHz 435.838 MHz
13cm(1) 2400.188 MHz 2400.338 MHz 2400.588 MHz
13cm(2) 2401.173 MHz 2401.323 MHz 2401.573 MHz
3cm 10450.975 MHz 10451.125 MHz 10451.375 MHz

1.5cm 24047.885 MHz 24048.035 MHz 24048.285 MHz
[07162007]
=====
OO-38 OPAL
Catalog Number: 26063
Launch Date: January 27, 2000

Status: Non-Operational

Mode U TLM Beacon
Downlink: 437.1000 MHz 9600 FSK
[08132007]
=====
UO-36 UoSAT-12
Catalog number: 25693
Launch date: April 21, 1999

Status: Unknown

Uplink: 145.960 MHz (9600-baud FSK)
Downlinks: 437.025 MHz
437.400 MHz

Broadcast Callsign: UO121-11
BBS: UO121-12

The VK5HI viewer shareware for UO-36 is available on the AMSAT-NA web
site at the following URL:
ftp://ftp.amsat.org/amsat/software/win32/display/ccddsp97-119.zip
[01222007]
=====
SO-35 SUNSAT
Catalog Number: 25636
Launch date:February 23, 1999

Status: Non-Operational

Downlink: Mode B Repeater: 436.291 MHz
Mode J Digipeater: 436.250 MHz

Uplinks: Mode B Repeater: 145.825 MHz
Mode J Digipeater: 145.825 MHz
145.900 MHz

For more information of SUNSAT vist the satellite web site:
http://esl.ee.sun.ac.za/projects/sunsat/
[01222007]
=====
PO-34 PANSAT
Catalog number: 25520
Launch date: October 30, 1998

Status: Telemetry downloads only

Uplink/downlink: 436.500 MHz

Official Webpage: http://www.sp.nps.navy.mil/pansat/
[05092004]
=====
SO-33 SEDSAT-1
Catalog number: 25509
Launch date: October 24, 1998

Status: Semi-operational

Downlink: 437.910 MHz FM (9600-baud FSK)

The satellite is not currently available for uplink transmissions and
the image and transponder recovery efforts have been unsuccessful.

For more information on SedSat-1 visit the satellite web site:
http://seds.uah.edu/projects/sedsat/sedsat.htm
[09042006]
=====
GO-32 Gurwin TechSat-1B
Catalog number: 25397
Launch Date: July 10, 1998

Status: Non-Operational

Current Modes:
Telemetry : /u

Downlink: 435.225 MHz FM (9600-baud FSK)
435.325 Mhz - Not Available - temperature problems
Uplinks: 145.850 FM
145.890 FM
145.930 FM
1269.700 FM
1269.800 FM
1269.900 FM

Broadcast Callsign: 4XTECH-11
BBS Callsign: 4XTECH-12

More information of GO-32 can be found at:
http://asri.technion.ac.il/techsat/

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=14&retURL
=/satellites/status.php
[07172010]
=====
TO-31 TMSAT-1
Catalog number: 25396
Launch Date: July 10, 1998

Status: Non-operational

Uplink: 145.925 MHz 9600 baud FSK
Downlink: 436.925 MHz 9600 baud FSK

Broadcast callsign: TMSAT1-11
BBS: TMSAT1-12
[05012006]
=====
MO-30 UNAMSAT-2
Catalog Number: 24305
Launch Date: September 5, 1996

Status: Non-operational

Downlink: 435.1380 MHz AFSK 1200 BPS
Downlink: 435.2060 MHz AFSK 1200 BPS
Uplink: 145.8150 MHz AFSK 1200 BPS
Uplink: 145.8350 MHz AFSK 1200 BPS
Uplink: 145.8550 MHz AFSK 1200 BPS
Uplink: 145.8750 MHz AFSK 1200 BPS
[06042009]
=====
PO-28 POSAT-1
Catalog number: 22829
Launch Date: September 25, 1993

Status: Non-operational

Downlink: 429.950
Uplink: Not until handover back to Amatuer usage

Broadcast callsign: POSAT1-11
BBS callsign: POSAT1-12

AMSAT Webpage: http://www.amsat.org/amsat/sats/n7hpr/po28.html
POSAT-1 webpage:
http://www.ee.surrey.ac.uk/SSC/CSER/UOSAT/missions/posat1.html
[01012009]
=====
AO-27 AMRAD
Catalog number: 22825
Launch Date: September 26, 1993 0140z
Launch site: Kourou, French Guiana

Status: Recovery efforts in progress

Current Mode: V/u

Uplink: 145.850 MHz FM
Downlink: 436.797 MHz FM

Mode and Antenna Polarization:
V: Linear
U: Linear

Official Webpage: http://www.ao27.org
[12032012]
=====
IO-26 ITAMSAT
Catalog number: 22826
Launch Date: September 26, 1993 0140z

Status: PSK carrier only

Current Mode:

Uplinks: 145.875 MHz FM 1200-baud
145.900 MHz FM 1200-baud
145.925 MHz FM 1200-baud
145.950 MHz FM 1200-baud

Downlink: 435.808 MHz PSK

Broadcast Callsign: ITMSAT-11
BBS: ITMSAT-12

Official webpage: http://www.itamsat.org
AMSAT Webpage: http://www.amsat.org/amsat/sats/n7hpr/io26.html
[01212007]
=====
KO-25 KITSAT
Catalog number: 22828
Launch date: September 26, 1993

Status: Non-operational

Uplink: 145.980 MHz FM 9600-baud FSK
Downlink: 436.500 MHz FM

Broadcast Callsign: HL02-11
BBS: HL02-12
[05092004]
=====
AO-24 ARSENE
Catalog Number: 22654
Launch Date: May 13, 1993

Status: Non-operational

Uplink: 435.0625 MHz FM 1k2bps AFSK
435.1125 MHz FM 1k2bps AFSK
435.1375 MHz FM 1k2bps AFSK
Downlink: 145.9750 MHz FM 1k2bps AFSK
2446.5025 MHz FM 1k2bps AFSK

Beacon: 2446.4700 MHz CW

Broadcast callsign:
BBS:
[12162009]

=====
KO-23 KITSAT
Catalog number: 22077
Launch date: August 10, 1992

Status: Non-operational

Uplink: 145.900 MHz FM (9600-baud FSK)
Downlink: 435.170 MHz FM

Broadcast Callsign: HLO1-11
BBS: HLO1-12
[01222007]
=====
UO-22 UOSAT
Catalog number: 21575
Launch date: July 17, 1991

Status: Non-Operational

Uplink: 145.900 FM 9600-baud FSK
Downlink: 435.120 MHz FM

Broadcast Callsign: UOSAT5-11
BBS: UOSAT5-12
[01222007]
=====
AO-21 AMSAT-OSCAR 21
Catalog Number: 21087
Launch Date: January 29, 1991

Status: Non-Operational

Uplink: 435.041 MHz FM DSP
Downlink: 145.983 MHz FM DSP
[01222007]
=====
FO-20 JAS-1b
Catalog number: 20480
Launch Date: February 07, 1990

Status: Non-Operational

Beacons: 435.795 MHz CW
435.910 MHz AX25

Voice Transponder:
Uplink: 145.900 to 146.000 MHz CW/LSB
Downlink: 435.800 to 435.900 MHz CW/USB

Digital Transponder:
Uplinks: 145.850 MHz
145.870 MHz
145.890 MHz

145.910 MHz
Downlink: 435.910 MHz

More FO-20 info can be found at:
http://www.amsat.org/amsat/sats/n7hpr/fo20.html
[01152007]
=====
WO-18 WEBERSAT
Catalog Number: 20441
Launch Date: January 22, 1990

Status: Non-Operational

Downlink: 437.104 MHz SSB 1200 Baud PSK AX.25
[05012006]
=====
DO-17 Dove
Catalog Number: 20440
Launch Date: January 22, 1990

Status: Non-operational.

Downlink: 145.825 MHz FM 1200 Baud AFSK
Beacon: 2401.220 MHz
[05012006]
=====
AO-16 PACSAT
Catalog number: 20439
Launch Date: January 22, 1990

Status: non-operational

Current Mode: V/u

Uplink: 145.900 MHz FM 1200-baud Manchester FSK (reserved)
145.920 MHz FM VOICE
145.940 MHz FM 1200-baud Manchester FSK (reserved)
145.960 MHz FM 1200-baud Manchester FSK (reserved)

Downlink: 437.026 MHz USB VOICE
(1200-baud PSK - MBL Telemetry Only)

Mode-S Beacon: 2401.1428 MHz [NO FUTURE OPERATIONS PLANNED]

Mode and Antenna Polarization:
U: RC 437.050 MHz RHCP
PSK 437.026 MHz LHCP
V: Linear

Broadcast Callsign: PACSAT-11
BBS: PACSAT-12

AO-16 AMSAT Webpage: http://www.amsat.org/amsat/sats/n7hpr/ao16.html
[07242009]

=====
UO-15 UoSAT-4
Catalog Number: 20438
Launch Date: January 22, 1990

Status: Non-operational

Uplink: ?
Downlink: 435.1250MHz (?)
435.1200MHz (?)
[06042009]
=====
UO-14 UoSAT-3
Catalog number: 20437
Launch date: January 22, 1990

Status: Non-operational

Uplink: 145.975 MHz FM
Downlink: 435.070 MHz FM
[05092004]
=====
FO-12 Fuji-OSCAR 12
Catalog Number: 16909
Launch Date: August 12, 1986

Status: Non-Operational

Mode V/U (J) Linear Transponder (Inverting):
Uplink: 145.9000 - 146.0000 MHz SSB/CW
Downlink 435.8000 - 435.9000 MHz SSB/CW

Mode V/U (J) Packet:
Uplink: 145.8500 MHz MFSK 1200 BPS
Uplink: 145.8700 MHz MFSK 1200 BPS
Uplink: 145.8900 MHz MFSK 1200 BPS
Uplink: 145.9100 MHz MFSK 1200 BPS

Downlink 435.9100 MHz PSK 1200 BPS

Telemetry Beacon: 435.7950 MHz SSB/CW
[01152007]
=====
AO-10 OSCAR 10
Catalog number: 14129
Launch Date: June 16, 1983

Status: Non-operational

Uplink: 435.030 to 435.180 MHz CW/LSB
Downlink: 145.975 to 145.825 MHz CW/USB

Beacon: 145.810 MHz (unmodulated carrier)

W4SM has more information about the satellite at the following URL:
http://www.cstone.net/~w4sm/AO-10.html
[05092004]
=====
AO-8 AMSAT-OSCAR 8
Catalog Number: 10703
Launch Date: March 3, 1978

Status: Non-Operational

Mode V/U (J) Linear Transponder (Non-Inverting): Non-Operational
Uplink: 145.9000 - 146.0000 MHz SSB/CW
Downlink 435.1990 - 435.2000 MHz SSB/CW

Mode V/U (J) TLM Beacon: Non-Operational
Downlink 435.0950 MHz CW

Mode V/A (A) Linear Transponder (Non-Inverting): Non-Operational
Uplink: 145.8500 - 145.9000 MHz SSB/CW
Downlink 29.4000 - 29.5000 MHz SSB/CW

Mode V/A (A) TLM Beacon: Non-Operational
Downlink 29.4020 MHz CW
[01152007]
=====
AO-6 AMSAT-OSCAR 6
Catalog Number: 06236
Launch Date: October 15, 1972

Status: Non-Operational

Uplink: 145.9000 - 146.0000 MHz SSB/CW
Downlink: 29.4500 - 29.5500 MHz SSB/CW
Beacons: 29.450 MHz
435.100 MHz
[01312008]
=====
AO-5 Australis-OSCAR 5
Catalog Number: 04321
Launch Date: January 23, 1970

Status: Non-Operational

Telemetry Beacons: 144.0500 MHz CW
29.4500 MHz CW
[01152007]
=====
OSCAR III
Catalog Number: 01293
Launch Date: March 09, 1965

Status: Non-Operational

Uplink: 145.9750 - 146.0250 MHz SSB/CW
Downlink: 144.3250 - 144.3750 MHz SSB/CW

[01012007]
=====
RS-15 RADIO SPORT RS-15
Catalog number: 23439
Launch Date: December 26, 1994

Status: Non-operational

Uplink: 145.858 to 145.898 MHz CW/USB
Downlink: 29.354 to 29.394 MHz CW/USB

Beacon 1: 29.352 MHz (intermittent)
Beacon 2: 29.398 MHz

SSB meeting frequency: 29.380 MHz (unofficial)
[06202004]
=====
RS-13 RADIO SPORT RS-13
Catalog number: 21089
Launch date: February 5, 1991

Status: Non-operational

Uplink: 21.260 to 21.300 MHz CW/USB
Downlink: 145.860 to 145.900 MHz CW/USB

Beacon: 145.860 MHz

Robot: 145.908 MHz
[05232004]
=====
RS-12 RADIO SPORT RS-12
Catalog number: 21089
Launch date: February 5, 1991

Status: Non-operational

Uplink: 21.210 to 21.250 MHz CW/USB
Downlink: 29.410 to 29.450 MHz CW/USB

Beacon: 29.408 MHz

Robot: 29.454 MHz
[05232004]
NNNN
/EX

SB SAT @ AMSAT W8ISS $WSR-063.S4
WSR 063 Part 4 03/04/2013

AMSAT NEWS SERVICE BULLETIN 063.S4
FROM AMSAT HQ SILVER SPRING, MD, March 04, 2013
TO ALL RADIO AMATEURS
BID: $WSR-063.S4

THE FOLLOWING SATELLITES HAVE RE-ENTERED OR HAVE BEEN RETURNED SAFELY:

HAWKSAT 1
Catalog number: 35004
Launch Date: May 19, 2009 2355z
Launch site: Wallops Island, Virginia, USA

Status: re-entered
Re-entry date: September 04, 2012

Downlink: 437.345 MHz ?

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=105
[02112013]
=====
ARISSat-1
Catalog number: 37772
Launch date: August 03, 2011 1843z
Launch site: International Space Station

Status: Re-entered January 05, 2012

Callsign: RS01S

Current Mode(s):
Linear Transponder: U/v
Uplink: 435.758 to 435.742 MHz CW/LSB
Downlink: 145.922 to 145.938 MHz CW/USB

FM Telemetry/SSTV/Messages/ID:
Downlink: 145.950 MHz FM

Telemetry/Beacon:
Downlink: 145.939 MHz CW1
145.919 MHz CW2
145.920 MHz 1k BPSK USB
145.920 MHz 400b BPSK USB

Official Webpage:http://www.amsat.org/amsat-new/ARISSat/ARISSat.php

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/informal_detail.php?serialnum=89
[01052012]
=====
CP-6
Catalog Number: 35003
Launch Date: May 19, 2009 2355z
Launch site: Wallops Island, Virginia, USA

Status: Re-enetered October 06, 2011

Downlink: 437.365 MHz 1k2 AFSK

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=121

[01282013]
=====
Pharmasat
Catalog Number: 35002
Launch Date: May 19, 2009 2355z
Launch site: Wallops Island, Virginia, USA

Status: Re-entered August 14, 2012

Downlink: 437.465 MHz 1k2 AFSK

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=94
[01282013]
=====
ANUSAT
Catalog Number: 34808
Launch Date: April 20, 2009 0115z
Launch Site: Satish Dhawan Space Centre, India

Status: Re-entered
Re-entery date : April 18, 2012

Downlink: 435.000 MHz
Uplink: 145.800 MHz

Telemetry: 137.400 MHz
[02112013]
=====
CAERUS (Mayflower)
Catalog Number: 37252
Launch Date: December 08, 2010 15:43:00 UTC
Launch site: Kennedy Space Center, Titusville, Florida, USA

Status: Re-entered December 22, 2010

Uplink:
Downlink: 437.600 MHz 1k2 AX.25

Beacon: 437.600 MHz CW

Callsign: KJ6FIX

URL:
http://www2.isi.edu/research/prj-serc/prj-serc_projects/prj-serc_proje
cts-8.htm

IARU coordination status page:

[01282013]
=====
Cinema
Catalog Number: 36764
Launch Date: September 13, 2012 2139z

Launch Site: Wallops Island, Virginia, USA

Status: Ren-entered
Re-entry date: Spetember 10, 2010

Uplink:
Downlink:
Engineering: 2400 - 2450MHz
Telemetery: 2200 - 2300MHz

Beacon:

Callsign:

URL:
[02112013]
=====
CO-56 CUTE-1.7 + APD
Catalog number: 28941
Launch date: February 21, 2006

Status: Re-entered
Re-entered: October 25, 2009

Uplink: 1268.5000 MHz GMSK 9600 BPS
Downlink: 437.4700 MHz 1200 FM ax25 or SRLL (ACTIVE only near Japan?)

Telemetry Beacon: 437.3850 CW
Callsign: JQ1YPC

Information webpage:
http://lss.mes.titech.ac.jp/ssp/spacerium/cute1blog/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=56
[09062010]
=====
BEVO-1 (DRAGONSAT-1)
Catalog Number: 35690
Launch Date: May 19, 2009

Status: Re-entered
Re-entered:

Downlink: 437.325 MHz 9k6 GMSK
437.325 MHz CW 20wpm

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=117
[07312009]
=====
AggieSat2 (DRAGONSAT-2)
Catalog Number: 35690
Launch Date: May 19, 2009

Status: Re-entered
Re-entered:

Downlink: 436.250 MHz 9k6 FHSS
[11112009]
=====
Pollux
Catalog Number: 35693
Launch Date: July 31, 2009

Status: Re-entered
Re-entered:

Callsign: POLLUX-1

Downlink: 145.825MHz 1k2 AX.25

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=139
[09062010]
=====
Castor (ANDE-2)
Catalog Number: 35694
Launch Date: July 31, 2009

Status: Re-entered
Re-entered:

Callsign: KD4HBO-1

Downlink: 145.825 MHz 1k2 AX.25

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=144
[09062010]
=====
NO-62 FCAL
Catalog Number: 29667
Launch Date: December 21, 2006

Status: Re-Entered
Re-entered: July 28, 2008

Downlink: 437.385 Mhz APRS AX25

Downlink ID: KD4HBO

Website: http://eng.usna.navy.mil/~bruninga/fcal.html

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=59
[01012009]
=====
NO-61 ANDE
Catalog Number: 29664
Launch Date: December 21, 2006

Status: Re-Entered
Re-entered: December 25, 2007

Uplink/Downlink: 145.825 Mhz FM APRS AX25
[01032008]
=====
NO-60 RAFT-1
Catalog Number: 29661
Launch Date: December 21, 2006

Status: Re-Entered
Re-entered: May 30, 2007

Main Downlink: 145.825 Mhz FM APRS AX25
APRS Uplink: 145.825 MHz FM APRS AX25
Voice/PSK31 Uplink: 28.120 MHz

Packet to Voice ID: RAFT
[06112007]
=====
GENESAT-1
Catalog Number: 29655
Launch Date: December 16, 2006

Status: Re-Entered
Re-entered date: August 8, 2010

Current Mode: /u

Callsign: KE7EGC

Telemetry Beacon Downlink: 437.0695 MHz AFSK 1200 BPS

Official webpage: http://www.crestnrp.org/genesat1/ahc.html
[08082010]
=====
HO-59 HITSat
Catalog number: 29484
Launch date: September 22, 2006

Status: Re-Entered
Re-entered: June 18, 2008

Telemetry Downlink: 437.4250 MHz AFSK 1200 BPS
Beacon: 437.2750 MHz CW

Callsign: JR8YJT
[01012009]
=====
SO-43 Starshine 3
Catalog Number: 26929
Launch Date: September 30, 2001

Status: Re-Entered
Re-entered: January 21, 2003

Beacon: 145.825Mhz
[02212009]
NNNN
/EX

ANS is released worldwide via the AMSAT ANS e-mail reflector and a live
radiocast on the AMSAT-NA 20-meter net held each Sunday on 14.282 MHz.
Pre-net operations start at 18:00 UTC, with current ANS bulletins trans-
mitted to the eastern U.S. at 19:00 UTC and to the western U.S. at 19:30
UTC.

Information on AMSAT-NA is available at the following URL:
http://www.amsat.org

Mailing address:
AMSAT-NA
850 Sligo Avenue, Suite 600
Silver Spring, Maryland 20910-4703

Voice: 301-589-6062
888-322-6728
FAX: 301-608-3410

Currently, AMSAT-NA supports the following (free) mailing lists:

* AMSAT News Service (ANS)
* General satellite discussion (AMSAT-BB)
* Orbit data (KEPS)
* Manned space missions (SAREX)
* District of Columbia area (AMSAT-DC)
* New England area (AMSAT-NE)
* AMSAT Educational Liaison mailing list (AMSAT-EDU)
* AMSAT K-12 Educational Liaison mailing list (AMSAT-K12)

A daily digest version is available for each list.

To subscribe, or for more list information, visit the following URL:
http://www.amsat.org/mailman/listinfo/ans

In addition to regular membership, AMSAT-NA offers membership in the
President's Club. Members of the President's Club, as sustaining
donors to AMSAT Project Funds, will be eligible to receive additional
benefits. Application forms are available from the AMSAT-NA Office.

This week's Weekly Satellite Report Editor is James French, W8ISS.

ANS is always dedicated to past ANS editor 'BJ' Arts, WT0N, and to
the memory of longtime AMSAT supporters Werner Haas, DJ5KQ, Dennis
Kitchen, G0FCL and John Branegan GM4IHJ.

Please send any amateur satellite news or reports to: ans-editor{at}
amsat.org

NNNN
/EX

36. ANS-062 AMSAT News Service Weekly Bulletins

Newsgroup: rec.radio.amateur.space
Date: 2013-03-03 02:36:59 UTC
From: JoAnne Maenpaa <k9jkm@comcast.net>
Message-ID: <000f01ce17b7$adaf8ba0$090ea2e0$@net>
Source record: 13
Cross-posted to: rec.radio.amateur.space,rec.radio.info

AMSAT NEWS SERVICE
ANS-062

ANS is a free, weekly, news and information service of AMSAT North America, The Radio Amateur Satellite Corporation. ANS reports on the activities of a worldwide group of Amateur Radio operators who share an active interest in designing, building, launching and communicating through analog and digital Amateur Radio satellites.

Please send any amateur satellite news or reports to:
ans-editor@amsat.org

In this edition:

* Vanderbilt-AMSAT RadFxSat Cubesat Selected for NASA ELaNa Program
* AMSAT Shows New President’s Club Pin
* 5th European CubeSat Symposium, 3-5 June 2013, Brussels - Belgium
* American satellite starts transmitting after being abandoned in 1967
* STRaND-1 Information and Telemetry
* ARISS NEWS
* AMSAT-DC Workshop on Portable Satellite Ground Stations
* AMSAT Forum at ACADIANA ARA Hamfest - Free Admission Coupons for Youth
* Korean OSSI-1 Ham Radio CubeSat Frequency Coordinated
* ARRL Offers Two Sessions of their Teachers Institute

SB SAT @ AMSAT $ANS-062.01
ANS-062 AMSAT News Service Weekly Bulletins

AMSAT News Service Bulletin 062.01
>From AMSAT HQ SILVER SPRING, MD.
DATE, 2013
To All RADIO AMATEURS
BID: $ANS-062.01

Vanderbilt-AMSAT RadFxSat Cubesat Selected for NASA ELaNa Program

On February 26th, NASA announced the winning projects for the fourth round of their CubeSat Launch Initiative. Project Selection was based on technical feasability and the assessed merit for conducting technology demonstrations, STEM education, and science research. These selected projects are eligible for a free launch on NASA Educational Launch of Nanosatellite (ELaNa) missions as auxiliary payloads on launches planned for 2014, 2015 and 2016. The 24 winning cubeSat proposals came from universities, a Florida high school, non-profit organizations and NASA field centers.

AMSAT partnered with the Institute for Space and Defense Electronics (ISDE) at Vanderbilt University to develop our winning proposal. The official name of the project is RadFxSat and we were selected at priority 15 out of the 24 winners. AMSAT and ISDE plan to fly a Fox-1 type satellite with a sophisticated space radiation effects experiment to be developed by ISDE. This experiment is intended to improve computer modeling of radiation effects and help improve the survivability of modern semiconductor devices in the harsh radiation environment of earth orbit. AMSAT is especially interested in this area of science research since it affects our ham radio satellites. This project also represents an exciting "first" for AMSAT with the satellite's primary mission being science research. We believe that partnering on science and education missions will open up new launch opportunities for AMSAT satellites in the future.

Of course, RadFxSat also carries the same ham radio FM transponder as Fox-1 but on a different frequency pair. We believe we will have enough power to run the FM transponder simultaneously with the science mission most of the time. The transponder capability was an important component of our NASA ELaNa proposal since it enhances the opportunities for formal science, technology, engineering and math (STEM) education via "hands-on" school activites using an actual communications satellite. It also allows informal groups such as the boy scouts, girl scouts and ham radio clubs to introduce radio and satellite communications to our young people. AMSAT aims to show that STEM education can be exciting and fun!

The full text of the NASA announcement can be accessed on-line at: http://www.nasa.gov/home/hqnews/2013/feb/HQ_13-064_CubeSat_4.html

[ANS thanks AMSAT VP Engineering Tony Monteiro, AA2TX and Joshua Buck at NASA Headquarters, Washington for the above information]

AMSAT Shows New President’s Club Pin

You can join the AMSAT President’s Club with your contribution directly through easy, automatic charges to your credit card. Since AMSAT is a 501(C)(3) organization donations may be USA tax deductible. (Check with your tax advisor.)

Titanium Donors contribute at least US $400 per month or $4800 one time payment.
Platinum Donors contribute at least US $200 per month or $2400 one time payment.
Gold Donors contribute at least US $100 per month or $1200 one time payment.
Silver Donors contribute at least US $50 per month or $600 one time payment.
Bronze Donors contribute at least US $25 per month or $300 one time payment.
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payment.
Every donor will receive the specially designed pin and the unique AMSAT President’s Club Certificate. Starting at the Gold Donor level
and higher you will also receive a personal invitation to the AMSAT Dayton Dinner as our guest.

You choose where your contribution should go:

AMSAT-Fox
ARISS
Future Projects
General Fund
To join you can go to the AMSAT On-Line Store or contact Martha at the AMSAT office!

Phone: US Toll Free 888-322-6728 or 301-589-6062
E-mail: martha@amsat.org

The link to the AMSAT On-Line Store is
http://store.amsat.org/catalog/

[ANS thanks AMSAT for the above information]

5th European CubeSat Symposium, 3-5 June 2013, Brussels - Belgium

It is with great pleasure to remind you about the 5th European CubeSat Symposium that will take place on 3-5 June 2013 at the premises of Royal Military Academy in Brussels, Belgium.

This is the biggest CubeSat related event in Europe and last year it attracted more than 250 participants and industrial exhibits of 7 specialized companies. This year, we are expecting more participation. Applicants from all around the world are welcome.

The call for proposals and the online abstract submission system is available at www.CubeSatSymposium.eu

The important dates are:

15 Mar 2013: Deadline for the submission of abstracts
15 April 2013: Notification of acceptance
15 May 2013: Publication of the programme and the abstracts
24 May 2013: Deadline for online registration
3-5 June 2013: 5th European CubeSat Symposium at ERM, Brussels (3 full days)
6 June 2013: 6th QB50 Workshop at VKI, Brussels (by invitation only)

The session topics are:
CubeSat networks/constellations/swarms
Scientific instruments/sensors on CubeSats

Biology and microgravity experiments on CubeSats
Technology demonstration on CubeSats
Micropropulsion subsystems, formation flying
Attitude determination and control subsystem
Telecommunications, ground stations, ground station networks
Orbital dynamics for CubeSats, lifetimes of CubeSats in orbit
CubeSat flight experience, lessons learned
Other topics (e.g. expandable solar arrays, atmospheric re-
entry, CubeSats as free-flying payloads for the exploration of
the Solar System)
Future technologies on CubeSats
Deployment systems for CubeSats

[ANS thanks Cem Ozan Asma, PhD for the above information]

American satellite starts transmitting after being abandoned in 1967

An American satellite, abandoned in 1967 as a piece of Space Junk has begun transmitting again after 46 years.

An Amateur Radio Astronomer in North Cornwall accidentally picked up the signal and after cross checking with various lists, has identified it as LES1 built by the Massachusetts Institute of Technology and launched in 1965. The satellite failed to reach its intended orbit owing to a wiring error and has been drifting out of control ever since.

Phil Williams G3YPQ from near Bude noticed its peculiar signal drift caused by its tumbling end over end every 4 seconds as the solar panels become shadowed by the engine. ‘This gives the signal a particularly ghostly sound as the voltage from the solar panels fluctuates’ Phil says.

It is likely that the on board batteries have now disintegrated and some other component failure has caused the transmitter on 237Mhz, to start up when its in sunlight.

LES1 is about the size of a small car, It is not likely to re-enter the atmosphere for a long time as the orbit is still relatively high. It poses no threat other than that caused by the thousands of other pieces of space junk in orbit.

Phil says its remarkable to think that electronics built nearly 50 years ago, 12 years before Voyager 1, and long before microprocessors and integrated circuits, is still capable of working in the hostile environs of space.

Listening to the signal you can easily imagine the craft tumbling over and over every 4 seconds and the transmitter starting up as the sun rises. He refers to the hobby as ‘Radio-Archeology’!

[ANS thanks Phil Williams G3YPQ and Southgate ARN for the above information]

STRaND-1 Information and Telemetry

STRaND-1 carries an amateur radio AX.25 packet radio downlink on 437.568 MHz using 9600 bps FSK modulated data with HDLC frame, NRZI encoding.

Free satellite tracking software:
• SimpleSat Look Down http://www.amsat-uk.org/?p=17
• Gpredict http://gpredict.oz9aec.net/
• Orbitron http://www.amsat-uk.org/?p=51

Dr Chris Bridges would be delighted to receive all available telemetry files by email to C.P.Bridges@surrey.ac.uk

Mark Hammond N8MH has provided these tips to decode STRaND-1:

(1) Sprint-2 TNC set at 9600 baud in KISS mode (or any 9600 TNC in KISS mode probably)
(2) Using this software to capture http://www.dk3wn.info/files/online_kiss_plus.zip
(3) And using this software to decode the captured KISS files http://www.dk3wn.info/files/kissdump.zip

Thanks to Mike Rupprecht DK3WN for the excellent software.

Jan PE0SAT describes how he used the free TNC emulator software AGWPE and SDR# to decode the telemetry. This approach means you don't
have to buy a dedicated hardware TNC it simply uses your existing PC and radio that supports 9600 bps data:

(1) Record a pass using SDR# and a FUNcube Dongle Pro+ and save the IQ wav file so you can work with it after the pass.
(2) Configure AGW Packet Engine (AGWPE) as a 9600 baud modem using your audio mixer as input. If you don't have an audio mixer, use audio VAC to route the received audio to the AGW audio input.
(3) When the AGW packet engine is running use AGW-Online-KISS from DK3WN to connect to the packet engine and decode the telemetry.
(4) Open the IQ wav file within SDR# and playback the recorded file and tune to the correct receive frequency, now you can see decoded data within Online-Kiss.
(5) Feed the files captured to KISS-Dump

Descriptions of ONLINE KISS +, AGW ONLINE KISS and KISS Dump + are at http://tinyurl.com/SatSoftwareDK3WN/

The free AGWPE soundcard packet software AGWPE.zip is available at http://www.sv2agw.com/downloads/

Guide on how to use AGWPE http://www.soundcardpacket.org/

Latest Keps for the objects from the PSLV-C20 launch. Note: At the current time the object to satellite mapping is not known:

2013-009A
1 39086U 13009A 13057.07723200 -.00000047 00000-0 00000+0 0 66
2 39086 98.6489 247.4456 0046840 48.7060 103.7711 14.45874186 76
2013-009B
1 39087U 13009B 13057.12205894 -.00000045 00000-0 00000+0 0 65
2 39087 98.6295 247.4478 0010362 263.0055 96.9849 14.33603731 70
2013-009C
1 39088U 13009C 13057.12202184 -.00000045 00000-0 00000+0 0 54
2 39088 98.6260 247.4462 0010229 264.9844 95.0146 14.33699090 77
2013-009D
1 39089U 13009D 13057.12196648 -.00000045 00000-0 00000+0 0 52
2 39089 98.6302 247.4430 0009913 269.8258 90.1934 14.33842702 72
2013-009E
1 39090U 13009E 13057.12180062 -.00000045 00000-0 00000+0 0 57
2 39090 98.6314 247.4520 0008151 271.9062 88.1247 14.34269067 79
2013-009F
1 39091U 13009F 13057.12171611 -.00000045 00000-0 00000+0 0 69
2 39091 98.6289 247.4453 0009293 286.2139 73.7956 14.34449938 72
2013-009G
1 39092U 13009G 13057.12216226 -.00000045 00000-0 00000+0 0 62
2 39092 98.6325 247.4484 0010738 258.3712 101.6263 14.33353747 74

For more information visit
http://amsat-uk.org/satellites/strand-1/strand-1-telemetry/

[ANS thanks AMSAT-UK for the above information]

ARISS NEWS

Succesful ARISS Contacts

Uplands Elementary School Penticton, British Columbia, Canada - 2013-02-22

A successful ARISS Contact was made with with participants at Uplands Elementary School, Penticton, BC, Canada on 22 Feb. The contact began at approximately 19:36 UTC. The duration of the contact was approximately 9 minutes and 30 seconds. The contact was a telebridge between OR4ISS and IK1SLD.

Astronaut Chris Hadfield talked to students (K-6) throughout the South Okanagan & Similkameen Valleys in beautiful BC. They had students & home school students from Penticton, West Bench, Oliver & Keremeos. The event was hosted at Uplands Elementary, a school located in Penticton. Lisa Edwards, Principal, believes that students can "SOAR with a view to excellence" in the right environment. There has been a team of people in the community whose goal is to make the Ham Radio contact as part of a wider educational experience that inspired students & educators to continue to explore

STEM & space exploration for years to come.

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Soleado Elementary School Ranchos Palos, California, USA - 2013-02-25

A successful ARISS Contact was made with with participants at Uplands Elementary School, Penticton, BC, Canada on 22 Feb. Soleado Elementary School, Ranchos Palos Verdes, CA on 25 Feb. The event began at approximately 19:53 UTC. The duration of the contact was approximately 9 minutes and 30 seconds. The contact was direct between NA1SS and KE6JPM. Astronaut Chris Hadfield talked to students.

Soleado Elementary School's mission is to educate each and every one of its students to their fullest potential while cultivating a lifelong love of learning. Named for its beautiful location in the hills of Rancho Palos Verdes, our school is proud of its rich cultural background, academic achievement, and involvement in extra-curricular activities. Our mascot, a rosy-cheeked sun, is an exceptionally fitting characterization of our school, which wraps our students in the arms of a caring and supportive community that nurtures development of the whole child.

Founded in 1968, even Soleado's physical design embodies community and cooperation, with each core educational building housing five classrooms with one wall "open" to a shared "big room" in the center. The open classroom environment facilitates daily teacher collaboration and student interaction within and among grade levels, while "big rooms" allow for large group activities and foster a positive feeling of family among our students and staff. In addition to our strong sense of community and our open classroom model, another distinguishing characteristic of our school is its cultural and linguistic diversity. With 420 "Soleado Suns" this year in grades DK through 5, our student body encompasses families who come directly from 30 different countries speaking 21 languages.

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4th Dimotiko Scholeio Chaidariou, Chaidari, Greece - 2013-02-28

A successful ARISS Contact was made with with participants at 4th Dimotiko Scholeio Chaidariou, Chaidari, Greece on 28 Feb. The event began at approximately 09:42 UTC. The duration of the contact was approximately 9 minutes and 30 seconds. The contact was direct between OR4ISS and J41ISS.

4th Dimotiko Scholeio Chaidariou is located in Chaidari, a suburb in the north-west of Athens. It was constructed in 1978, but it is now being renovated so as to be more energy efficient. It is a two-storey building with 16 classrooms, a Head office and a stuff room.

The school serves 256 pupils, aged between 6 and 12 years old, from 1st Grade through 6th Grade. It is staffed by a headmistress and 24

teachers, 12 of whom teach all subjects required in the curriculum (that is: Greek Language, Mathematics, Geography, History, Science, Religious Education) plus two Physical Education teachers, a Music lessons teacher, two English language teachers, a French language teacher, a German language teacher, a teacher of Art, a teacher for Theatre, an Information & Technology teacher and a teacher responsible for the afternoon zone study. There is also a teacher who helps those pupils with special educational problems. The official lessons are in the morning (Monday - Friday) start at 8:10a.m. and finish at 2:00p.m. All pupils attend morning lessons, but those pupils whose both parents work, stay on at school and they study and prepare their homework for the next day starting at 12:30 p.m. and finish at 4:15p.m.

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Talcott Mountain Science Center & Academy, Avon, Connecticut, USA - 2013-02-28

A successful ARISS Contact was made with with participants at Talcott Mountain Science Center & Academy, Avon, Connecticut, USA on 28 Feb. The event began at approximately 15:53 UTC. The duration of the contact was approximately 9 minutes and 30 seconds. The contact was direct between NA1SS and W1TMS.

Talcott Mountain Science Center is one of Connecticut's premier informal science education institutions. The Center has been an initiator and catalyst in providing enrichment science education to students throughout the Northeast and a leader in teacher in-service education, including special programs for girls in science. TMSC is recognized for its innovations in gifted and talented programs, for its earth and space, alternative energy, atmospheric and environmental science activities for students, with ongoing science and technology in-service education for teachers as well as its one-of-a-kind k-8 model school for intellectually excited students, Talcott Mountain Academy for Mathematics, Science and Technology. Since 1985, Talcott Mountain Science Center has been nationally recognized as a pioneer in the development of interactive video programming in math and science education.

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Contacts hopeful for the coming week

ARISS is requesting listener reports for these contacts. Due to issues with the Kenwood radio that are not fully understood at present, the Ericsson radio is going to be used for these contacts. ARISS thanks everyone in advance for their assistance.

Lycée Polyvalent Anatole France, Cedex, France, direct via F4KIS/P Contact is a go for: Mon 2013-03-04 11:06:27 UTC 67 deg (If Space X launches on time)

Canyon Owyhee School Services Agency (COSSA), Wilder, ID, direct via W7VOI
Contact is a go for: Mon 2013-03-04 18:49:04 UTC 37 deg (If Space X launches on time)

Stonepark Intermediate School, Charlottetown, Prince Edward Island, Canada, direct via VY2PEI
Contact is a go for: Thu 2013-03-07 16:26:42 UTC 33 deg (If Space X launches on time).

ARISS is an international educational outreach program partnering the participating space agencies, NASA, Russian Space Agency, ESA, CNES, JAXA, and CSA, with the AMSAT and IARU organizations from participating countries.

ARISS offers an opportunity for students to experience the excitement of Amateur Radio by talking directly with crew members on-board the International Space Station. Teachers, parents and communities see, first hand, how Amateur Radio and crew members on ISS can energize youngsters' interest in science, technology, and learning. Further information on the ARISS program is available on the website http://www.ariss.org/ (graciously hosted by the Radio Amateurs of Canada).

[ANS thanks ARISS for the above information]

AMSAT-DC Workshop on Portable Satellite Ground Stations

[This originally appeared in ANS-020, see ANS-055 for details on registration]

The AMSAT-DC Group is planning for a Spring Workshop 2013, to take place on Saturday, March 23, at the NASA Goddard Space Flight Center in Greenbelt, Maryland. It will be a nearly all-day event.

This is a workshop for those who wish to learn more about satellite operations and develop their own portable ground station. Partici-pants will bring their wares to assemble, show, and explain to others that which will feature one or more of the following:

+ One's own laptop computer, with appropriate software installed, such as for satellite tracking, SDR receiver control, antenna control (optional), audio recording, time stamp track, and any of many other apps.

+ The FUNcube Dongle Pro receiver or equivalent. We will emphasize receiving only, and not the transmit side at this particular time.

+ One or more antennas for 146 MHz and 436 MHz, Arrow, Elk, or homebrew on a camera tripod, small mast, homebrew PVC, or hand-held.

+ Everything, or almost everything, ought to be designed to be
powered from a regulated 12-volt DC source of your choosing.
A table will be provided with a shared 120VAC wall outlet with-
in about 50 feet.

Volunteers are invited to join the planning committee (contact Pat
at n8pk at amsat.org.) Registration information will be announced by
February 15 via the AMSAT News Service (ANS), and on the AMSAT Cal-
endar of Events under http://www.amsat.org

The workshop cost is expected to be low (for incidental items) or
free to AMSAT members. Any non-US citizen who would like to attend
must contact Pat by February 15 at the latest.

To volunteer or ask questions contact Pat at n8pk at amsat.org.

Links for antenna ideas:
http://arrowantennas.com/
http://www.elkantennas.com/
http://www.g6lvb.com/homebrewarrow.htm
http://www.amsat.org/amsat-new/information/faqs/crow/index.php
http://www.amsat.org/amsat-new/echo/Az_El_Pos.pdf
http://www.wa5vjb.com/references/Cheap%20Antennas-LEOs.pdf
http://www.amsat.org/amsat-new/tools/downloads/iROTOR.pdf
http://www.arrl.org/shop/The-ARRL-Satellite-Handbook/
http://ac6v.com/antprojects.htm

Links for software ideas:
http://www.amsat.org/amsat-new/tools/software.php
http://www.amsat.org/amsat-new/tools/
http://www.moetronix.com/spectravue.htm
http://www.amsat.org/amsat-new/information/faqs/resguide.pdf
http://sdrsharp.com/

Links for receiver ideas:
http://www.funcubedongle.com/
http://www.amsat.org/amsat/intro/sats_faq.html
http://tinyurl.com/cdo9tyo (Spectravue Configuration)
http://sdrsharp.com/

AMSAT-DC
http://patkilroy.com/amsat-dc/

[ANS thanks Pat Kilroy, N8PK, AMSAT Area Coordinator, Maryland-DC
for the above information]

AMSAT Forum at ACADIANA ARA Hamfest - Free Admission Coupons for Youth

ACADIANA ARA would like to invite you to our 2013 Hamfest, March 8
and 9 at the Rayne Civic Center, Rayne Louisiana . Attached
is our Hamfest flyer with all the information and a FREE admission
coupon for you and your parents to attend our hamfest. Come out to
the hamfest to meet other hams, see new and used radio equipment,

attend forums, operate the radios set up for demonstration, or watch AARL movies.

This is a once a year opportunity to enjoy this segment of the hobby, I hope you can join us.

Note that Nick Pugh, K5QXJ, will be sponsoring an AMSAT Forum Saturday March 9 at 9am, during the Hamfest.

For more information visit
http://www.w5ddl.org/hamfest/Files/AARA%20Hamfest%20Flyer.pdf

[ANS thanks Nick Pugh for the above information]

Korean OSSI-1 Ham Radio CubeSat Frequency Coordinated

The IARU amateur radio satellite frequency coordination panel has announced the frequencies for the OSSI-1 CubeSat developed by Hojun Song DS1SBO.

Artist and radio amateur Hojun Song DS1SBO has spent 7 years developing his Open Source Satellite Initiative satellite OSSI-1. He has designed and developed it from scratch using readily available components rather than expensive space qualified hardware. It has a beacon in the 145 MHz band, a data communications transceiver in the 435 MHz band and carries a 44 watt LED optical beacon to flash Morse Code messages to observers on Earth.

OSSI-1 is planned to launch on April 19, 2013 into a 575 km 64.9° inclination orbit on a Soyuz-2-1b rocket from the Baikonur launch facility in Kazakhstan along with the Bion-M1, SOMP, BEESAT 2, BEESAT 3 and Dove-2 satellites.

The IARU amateur satellite frequency coordination panel has announced frequencies for a downlink on 145.980 MHz and an uplink/downlink on 437.525 MHz.

Video – How the Amateur Radio Satellite OSSI-1 Works
http://tinyurl.com/bdckaqb

Watch the BBC TV report: Korean artist has high hopes for his homemade satellite
http://www.bbc.co.uk/news/world-asia-19007475

OSSI CubeSat in New Scientist Magazine
http://amsat-uk.org/2012/11/06/ossi-cubesat-in-new-scientist-magazine/

Hojun Song DS1SBO visited London to give a well received presentation on his CubeSat to WIRED 2012
http://tinyurl.com/bcjw83z

Data Format for Korean OSSI CubeSat
http://amsat-uk.org/2013/01/23/data-format-for-korean-ossi-cubesat/

More background on OSSI Cubesate can be found in ANS-027:
Open Source Satellite OSSI CubeSat Launch in April 201

Open Source Satellite Initiative (OSSI) http://opensat.cc/

[ANS thanks AMSAT-UK for the above information]

ARRL Offers Two Sessions of their Teachers Institute

The ARRL Education & Technology Program has announced the schedule for two sessions of our professional development workshop, the Teachers Institute on Wireless Technology (TI-1) being offered during July 2013.

"We are also pleased to announce that Dayton Amateur Radio Association will be supporting and hosting a new professional development opportunity, an advanced Teachers Institute (TI-2) on Remote Sensing and Data Gathering, at their new educational facility. A March QST article includes a description of this new workshop. Please visit the ARRL website at: http://www.arrl.org/teachers-institute-on-wireless-technology for more information about Teachers Institute curriculum content, participant requirements, dates and locations and other details. Go to www.arrl.org/teachers-institute-application to download an application."

Tuition, resources and most expenses to attend the Teachers Institute are paid by donations to the ARRL Education & Technology Fund. Donate to support Wireless Technology Literacy today!

[ANS thanks Debra Johnson and the ARRL for the above information]

/EX

In addition to regular membership, AMSAT offers membership in the President's Club. Members of the President's Club, as sustaining donors to AMSAT Project Funds, will be eligible to receive addi-tional benefits. Application forms are available from the AMSAT Office.

Primary and secondary school students are eligible for membership at one-half the standard yearly rate. Post-secondary school students enrolled in at least half time status shall be eligible for the student rate for a maximum of 6 post-secondary years in this status. Contact Martha at the AMSAT Office for additional student membership information.

73,
This week's ANS Editor,
EMike McCardel, KC8YLD
kc8yld at amsat dot org

37. Weekly Highlights of Solar and Geomagnetic Activity, 25 February - 03 March 2013

Newsgroup: rec.radio.amateur.space
Date: 2013-03-04 16:34:54 UTC
From: SWPC.Webmaster@noaa.gov
Message-ID: <20130304163002.3A3E933C8E@panix2.panix.com>
Source record: 14
Cross-posted to: rec.radio.amateur.misc,rec.radio.amateur.dx,rec.radio.amateur.space,rec.radio.shortwave,rec.radio.info

```
:Product: Weekly Highlights and Forecasts
:Issued: 2013 Mar 04 0205 UTC
# Prepared by the US Dept. of Commerce, NOAA, Space Weather Prediction Center
# Product description and SWPC contact on the Web
# http://www.swpc.noaa.gov/weekly.html
#
# Weekly Highlights and Forecasts
#
Highlights of Solar and Geomagnetic Activity
25 February - 03 March 2013

Solar activity was very low for most of the week, with only B-class
flares observed. The majority of the B-class activity was split
between Regions 1682 (S18, L=299, class/area=Dai/240 on 01 Mar) and
1683 (S16, L=202, class/area=Eai/210 on 02 Mar) both of which
developed beta-gamma magnetic characteristics during the week.
Activity increased to low levels on 02 Mar, when Region 1687 (N06,
L=166, class/area=Cro/30 on 03 Mar) produced a C1 flare at 1511 UTC
and again at 1847 UTC. All three of the regions mentioned remain on
the visible disk at the time of this report.

A greater than 10 MeV proton enhancement was observed from a long
duration B9 flare which occurred on 25 Feb at 1151 UTC and was
attributed to old Region 1678 (N11, L=069) which had rotated around
the West Limb two days earlier. The proton flux enhancement began on
27 Feb, reached a peak of 0.995 pfu at 28/0440 UTC, and returned to
background levels early on 01 Mar.

The greater than 2 MeV electron flux at geosynchronous orbit was at
low to moderate levels until 02 Mar when it rose to 3800 pfu in
response to the arrival of a significant coronal hole high speed
stream. Flux remained at high levels through the end of the period.

Geomagnetic field activity was quiet for most of the week. However,
on 28 Feb around 15-17 UTC, a corotating interaction region (CIR)
and subsequent high speed solar wind stream (HSS) became
geoeffective. Solar wind speed which had been in the mid 300 km/s
range began rising and eventually peaked at 675 km/s early on 02
Mar. Bt rose to 18 nT by 01/0817 UTC while Bz ranged from +14 to -16
nT. The Phi angle shifted from a positive (away) orientation to a
negative (towards) orientation. The magnetosphere responded with
unsettled levels late on 28 Feb. Geomagnetic activity quickly
climbed to active levels for most of 01 Mar, punctuated by one
```

period of minor storm levels during the 09-12 UTC synoptic period. This response was no doubt exacerbated by the favorable orientation described by the Russel-McPherron effect. Solar wind speed declined abruptly between 02/11-15 UTC, dropping from about 590 to around 480 km/s, then began a slow decline back to around 400 km/s by the end of the week. After an active first period on 02 Mar, the remainder of the week saw quiet to unsettled activity levels.

Forecast of Solar and Geomagnetic Activity
04 March - 30 March 2013

Solar activity is expected to be very low to low with a slight chance for an isolated M-class event. The threat of an M-class flare is most probable between 11 and 23 Mar with the return of old Region 1675.

No proton events are expected at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit is expected to begin the period at high levels in response to the continued presence of a recurrent coronal hole high speed stream but decline to normal to moderate levels after 06 Mar. High levels are possible again in the last day of the forecast period with the return of a recurrent coronal hole high speed stream.

Geomagnetic field activity is expected to be predominantly quiet to unsettled. Active periods are possible on 28 March with the return of a recurrent coronal hole high speed stream.

38. Darlas footjob

Newsgroup: rec.radio.amateur.space
Date: 2013-03-06 18:47:52 UTC
From: Iran <tamarmadgecay@gmail.com>
Message-ID: <231b980d-7e58-4d2f-b147-c5584b34535d@googlegroups.com>
Source record: 15

Darlas footjob http://t.co/vLN1gAxF

39. Radio Meteor Obs. Bull. February 2013

Newsgroup: rec.radio.amateur.space
Date: 2013-03-06 19:19:13 UTC
From: Chris Steyaert <observations@rmob.org>
Message-ID: <sj5fj8t9fk98uv8sm8jn6oo1jbhrgqg782@4ax.com>
Source record: 16
Cross-posted to: rec.radio.amateur.space,sci.astro.amateur

Radio Meteor Observation Bulletin No. 235 of February 2013 (72 K) is available now as

http://www.rmob.org/rmobtext/rmob1302.txt

More information and the visual presentation of the hourly forward scatter counts can be found on

http://www.rmob.org

Chris

40. Re: Radio Meteor Obs. Bull. February 2013

Newsgroup: rec.radio.amateur.space
Date: 2013-03-06 20:49:21 UTC
From: Robert Clark <rgregoryclark@gmail.com>
Message-ID: <c676aecc-7800-4b62-96eb-d34a44dad357@l9g2000yqp.googlegroups.com>
Source record: 17
Cross-posted to: rec.radio.amateur.space,sci.astro.amateur

On Mar 6, 2:19 pm, Chris Steyaert <observati...@rmob.org> wrote:
> Radio Meteor Observation Bulletin No. 235 of February 2013 (72 K) is available
> now as
>
> http://www.rmob.org/rmobtext/rmob1302.txt
>
> More information and the visual presentation of the hourly forward scatter
> counts can be found on
>
> http://www.rmob.org
>
> Chris

Were there observed a greater number than usual this last February?

Bob Clark

41. ANS-069 AMSAT News Service Weekly Bulletins

Newsgroup: rec.radio.amateur.space
Date: 2013-03-10 01:48:39 UTC
From: JoAnne Maenpaa <k9jkm@comcast.net>
Message-ID: <001e01ce1d31$0f15c110$2d414330$@net>
Source record: 18
Cross-posted to: rec.radio.amateur.space,rec.radio.info

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AMSAT NEWS SERVICE
ANS-069

ANS is a free, weekly, news and information service of AMSAT North
America, The Radio Amateur Satellite Corporation. ANS reports on the
activities of a worldwide group of Amateur Radio operators who share
an active interest in designing, building, launching and communicat-
ing through analog and digital Amateur Radio satellites.

Please send any amateur satellite news or reports to:
ans-editor at amsat.org

In this edition:

* AMSAT Now Preparing for Two Launch Opportunities
* AMSAT.ORG Web Site Testing On-Line Now
* SpaceTrack Approves AMSAT Request for Redistribution of KEPS
* Help Wanted: AMSAT News Service Rotating Editor Positions Available
* Rare Grid Square Opportunities
* SARL National Convention Includes SumbandilaSat Ground Station Visit
* NASA-TV Coverage Schedule for ISS Expedition 34 Departure/Landing
* 2013 Amateur Transponder Launch Opportunity Summary
* ARISS School Contacts Nearing 800 Mark
* NASA Summer 2013 Internship Applications Close on March 15
* Microsoft Blocking arrl.net and arrl.org E-mail Addresses
* Satellite Shorts From All Over

SB SAT @ AMSAT $ANS-069.01
ANS-069 AMSAT News Service Weekly Bulletins

AMSAT News Service Bulletin 069.01
>From AMSAT HQ SILVER SPRING, MD.
March 10, 2013
To All RADIO AMATEURS
BID: $ANS-069.01

**********************************************************************
* Reminder! AMSAT-DC Spring Workshop on Portable Satellite Ground *
* Stations - Saturday, March 23, 2013, at the NASA Goddard Space *
* Flight Center in Greenbelt, MD beginning at 9:00AM EDT. Pre- *
* registration is required. To register call Martha at the AMSAT *
* Office 301-589-6062 no later than Thursday, March 21. Sorry, *
* no late registration at the door! See full details at: *
* http://patkilroy.com/amsat-dc/ *
* *
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* The suggested donation for advanced registration and admission *
* for non-AMSAT members is $25. Registration for AMSAT members *
* registering in advance is free. *
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AMSAT Now Preparing for Two Launch Opportunities

AMSAT's focus on STEM education and development of a cubesat platform capable of flying a science mission with a reliable communications link resulted in our previous selection of Fox-1 in the third round and RadFxSat (Fox-1B) in the recent fourth round of NASA's Cubesat Launch Initiative. Actual launch vehicle selections are dependent on the availability of auxiliary payload space and on what orbits are required.

AMSAT VP Engineering Tony Monteiro reports that he has been in conversation with NASA about our orbital preferences/priorities and we're awaiting a response from NASA as to a specific launch selection. In the meantime, the engineering team expects to complete Fox-1 in 2013 and have RadFxSat ready in the 2nd half of 2014 in order to take advantage of launch opportunities that may be offered by NASA.

Fox-1 and the RadFxSat missions are based on similar system architecture. Both satellites:

+ Include a U/V (mode B) FM analog transponder. Its 2 meter down link should be even easier to hear than AO-51.

+ Are designed so you can work it with just a dual-band HT and an "arrow" hand-held antenna.

+ Will send telemetry on the voice downlink in the frequencies below the audible band as low-speed FSK with forward error correction.

+ Will support a high speed digital data mode.

+ A free telemetry decode program, FoxTLM, will be available to decode and display the low-speed telemetry and the high speed data downlink on Fox-1. An update will be provided for RadFxSat.

+ All Fox cubesats are designed to host advanced science payloads to support future science missions that help us to continue qualify for NASA ELaNa (free) launches.

AMSAT President Barry Baines, WD4ASW summarized the Fox cubesat program, "Although we are subject to the same launch constraints as every other satellite builder accepted in the Cubesat Launch Initiative, we will be ready for a launch opportunity when it is offered. As soon as we know when we're manifested that information will be shared with our members."

[ANS thanks the Fox Engineering Team and AMSAT President Barry Baines, WD4ASW for the above information]

AMSAT.ORG Web Site Testing On-Line Now

The web development team, working on the recovery of the AMSAT-NA web at http://www.amsat.org, reports the site is becoming active with testing of the system. As testing proceeds visitors to AMSAT's site will begin to see restoration of prior functionality and introduction of new features where appropriate.

AMSAT VP User Services Gould Smith, WA4SXM said, "Our web team is making good progress in the restoration of popular features our users counted on in the past. This also gives us an opportunity to review some of the older content to prioritize in what order the system is brought back up."

Although the pages seem sparsely populated at present, soon the entire web presence will assume a new look-and-feel with additional functionality, restored features, background graphics templates and overall look-and-feel. A site map feature is planned for development allowing quick navigation of the site's future multiple features.

Clicking on "SAT STATUS" on the top of the new page will bring you to the Live OSCAR Satellite Status Page which currently resides at http://oscar.dcarr.org/.

The roll-out of the Fox Project web pages can be accessed with a click on the menu bar at the top of the home page.

Gould noted, "With the introduction of AMSAT's new web technology we plan to use a new content management system to roll out important and and breaking satellite news via the web page as soon as our volunteers have the chance to post them." Continuing, Gould said, "We will still maintain our existing distribution via the AMSAT News Service so e-mail subscribers will not need to change anything. The ANS bulletins will still arrive in your in-box once a week."

You are invited to view the prototyping work in-progress on the new AMSAT-NA web. Use the URL http://www.amsat.org. If you have prior cache entries or bookmarks set to www.amsat.org/amsat-new those will no longer work.

[ANS thanks AMSAT VP User Services Gould Smith, WA4SXM and Joe Fitzgerald, KM1P for the above information]

SpaceTrack Approves AMSAT Request for Redistribution of KEPS

AMSAT-NA Orbital Data Manager Ray Hoad, WA5QGD announced this week that AMSAT's request to re-distribute Air Force Space Command (AFSPC) Keplerian elements from SpaceTrack has been approved on March 7 for

the period April 1, 2013 to April 1, 2014. Ray wrote, "Thanks to AFSPC, Perry Klein, W3PK and Paul Williamson, KB5MU for their help in this process. Once again, we are 'good to go"' for another year."

[ANS thanks Ray Hoad, WA5QGD for the above information]

Help Wanted: AMSAT News Service Rotating Editor Positions Available

The AMSAT News Service (ANS) is responsible for researching, writing, editing, and publishing the weekly amateur satellite news bulletins.

With the addition of a couple of volunteers this would generally involve taking a turn about every 3 to 4 weeks.

At present we a looking for interested satellite enthusiasts to join the ANS editorial team. Professional writing/editing experience is NOT a requirement. Your interest and enthusiasm in following and reporting on amateur radio in space will get you started! The ANS Editor team helps each other by rounding up items of interest. Plus we receive submitted items for publication ... so you won't be left all alone!

If you can commit to working on the bulletins for a week on a rotating basis please reply via e-mail to AMSAT News Service Editor Lee McLamb, KU4OS via ku4os at amsat.org.

[ANS thanks AMSAT Vice-President User Services, Gould Smith, WA4SXM for the above information]

Rare Grid Square Opportunities

Antigua and Barbuda

Nikolai Ozerov, VE3NKL plans to operate as V26NK from grid square FK97 in Aruba on daytime SO-50 passes between March 11-16. He will be looking for contacts with North American, Caribbean, Central American, and South American stations depending on the pass.

Mawson Station, Antarctic

Craig Hayhow signing VK0JJJ from Australia's Mawson Base in the Antarctic, 67°36' S 62°52' E, grid MC12kj is reportedly equipped with an Arrow antenna for operating satellites. Craig has also activated the VK0RTM/B 6 meter beacon on 50.300 MHz running at 50 watts. He will also be on the air on HF phone and digital modes. (via Austraila WIA News, March 3)

[ANS thanks Nikolai Ozerov, VE3NKL, and Australia WIA News for the above information]

Plan Ahead for KV1J on Satellites from Island of Miquelon

Eric, KV1J, will once again be operating from the Island of
Miquelon (NA-032, DIFO FP-002 WLOTA 1417, Grid GN17) as FP/KV1J
between July 6-16th. Activity will include HF and 6M and look
for him on the satellites, weather permitting.

[ANS thanks OPDX Bulletin, ARRL DX News for the above information]

NASA-TV Coverage Schedule for ISS Expedition 34 Departure/Landing

Expedition 34 will handover command of the International Space Sta-
on Wednesday, March 13 as Commander Kevin Ford KF5GPP of NASA, Rus-
sian Soyuz Commander Oleg Novitskiy and Russian Flight Engineer
Evgeny Tarelkin prepare for their return to Earth aboard a Soyuz
spacecraft. Landing in Kazakhstan is planned to occur on March 14
at 11:57 PM EDT (UTC-4).

Expedition 35 will begin aboard the station under the command of
Chris Hadfield KC5RNJ/VA3OOG of the Canadian Space Agency. Hadfield
will be the first Canadian commander. Expedition 35 also includes
NASA astronaut Tom Marshburn KE5HOC and Russian cosmonaut Roman
Romanenko. In two weeks they will be joined by three additional crew
members: NASA astronaut Chris Cassidy and Russian cosmonauts Pavel
Vinogradov RV3BS and Alexander Misurkin.

NASA TV has posted the following schedule of events which will be
streamed on-line at http:www.nasa.gov/ntv:

(all times are US Eastern Daylight Time EDT or UTC-4)

March 13, Wednesday
5:10 p.m. - ISS Expedition 34/35 Change of Command Ceremony
Ford hands over ISS command to Hadfield

March 14, Thursday
4:45 p.m. - ISS Expedition 34 Farewells and Hatch Closure Coverage
with hatch closure scheduled at 5:15 p.m.
8:15 p.m. - ISS Expedition 34/Soyuz TMA-06M Undocking Coverage
with undocking scheduled at 8:30 p.m.
10:45 p.m. - ISS Expedition 34/Soyuz TMA-06M Deorbit Burn and
Landing Coverage with Deorbit burn scheduled at
11:04 p.m.; landing near Arkalyk, Kazakhstan scheduled
at 11:57 p.m.

March 15, Friday
2 a.m. - Video File of the ISS Expedition 34/Soyuz TMA-06M
Landing and Post-Landing Activities
1:40 p.m. - ISS Expedition 35 VIP Event for the Canadian Space
Agency
2 p.m. - Video File of the ISS Expedition 34/Soyuz TMA-06M
Landing and Post-Landing Activities; scheduled to

include post-landing interview with Expedition 34
Commander Kevin Ford of NASA and the return of
Cosmonauts Oleg Novitskiy and Evgeny Tarelkin to
Chkalovsky Airfield near Star City, Russia.

[ANS thanks NASA for the above information]

SARL National Convention Includes SumbandilaSat Ground Station Visit

The South African Radio League (SARL) 2013 National Convention will open on April 26 with a welcoming function at the West Rand Amateur Radio Club. The SARL Annual General Meeting will be held on Saturday morning April 27. Beginning on March 4, registration forms and program details will be available on http://www.sarl.org.za.

On Saturday afternoon there is a visit to the Hartbeeshoek satellite tracking station where many international satellites are tracked and managed. This also includes a visit to see the SumbandilaSat ground station.

[ANS thanks SARL News, March 3 for the above information]

2013 Amateur Transponder Launch Opportunity Summary

In addition to the AMSAT-NA Fox cubesat launch opportunity announcements several other satellites with amateur radio transponders are expected to launch during 2013. Here is a summary of the upcoming launch plans:

+ A 2013 Yasny Dnepr Launch should have:
o AMSAT-UK FUNcube-1 435/145 MHz 500mW PEP linear transponder and 1200 bps BPSK beacon for educational outreach for a planned 600-700km orbit.
o Delfi n3xT 435/145 MHz linear transponder
o Triton-1 435/145 MHz single channel FM to DSB transponder
o Triton-2 435/2408 MHz FM transponder + 435/145 MHz FM to DSB transponder
o CPUT ZACube-1 435/145 MHz FM transponder

+ In 2nd quarter 2013 TURKSAT-3USAT with a 145/435 MHz linear transponder (see ANS-069: "May 2013 Launch for TURKSAT-3USAT Linear Transponder Cubesat", http://amsat.org/pipermail/ans/2013/000694.html)

+ June 2013 Ukube-1 with AMSAT-UK FUNcube boards to provide an amateur radio 435/145 MHz linear transponder and a 1200 bps BPSK beacon for educational outreach.

[ANS thanks the satellite teams for the above information]

ARISS School Contacts Nearing 800 Mark

This week the total number of ARISS ISS to earth school events (each school counts as one event) is 797.

Prince Edward Island, Canada

A successful ARISS contact was completed with the Stonepark Intermediate School, Charlottetown, Prince Edward Island, Canada, on Thursday, March 7. The contact was be direct between NA1SS and VY2PEI.

Grade 9 students at Stonepark Intermediate, Charlottetown, PEI preparing for their contact with the International Space Station through a number of in class activities, research and guest speakers. In the past three months they researched life on the ISS and watched YouTube segments of various facets of the ISS. Any news stories featuring Chris Hadfield and the ISS were read and discussed. The students attended sessions by a local university professor of engineering who worked for NASA and local amateur radio operators. Both sessions gave students insight into the workings ISS, NASA and the ham radio.

France

A successful ARISS contact was completed with the Lyc&#65533;e Polyvalent Anatole France, Cedex, France on March 9. The contact was direct between OR4ISS and F4KIS.

Anatole France is a French high school located in Lillers, a small town in the center of the Pas-de-Calais department. There are about 850 students aged between 15 and 20 years old. The science teachers and the local amateur radio club F6KIS, which became in 2010 the "Artois Lys Radio Club", have developed a partnership since 2007 collaborating on projects to send sounding balloons into the stratosphere. This year, they are working with a group of students to contact the ISS. The students are preparing the TPE project for their final exam. They need to define the subject of their research, find information about it and run experiments over a period of six months in order to give an oral presentation of their work in front of a jury.

ARISS Contacts Planned for Coming Week

Monday, March 9: Valley Manor School, Martensville, SK, Canada, direct via VE5RAC at 19:23:56 UTC 34 deg.

Tuesday, March 12: Mt. Ousley Public School, Fairy Meadow, NSW, Australia, telebridge via IK1SLD at 07:35:42 UTC 44 deg. For listeners in the Wollongong and Sydney area, the historic event will be relayed onto the VK 2 RMP repeater on 6850 at Maddens Plains. For interstate or overseas listeners, the event will be relayed onto IRLP Node 9010 and on Echolink via the AMSAT Con-

ference Bridge.

ARISS is requesting listener reports for this contact. Due to issues with the Kenwood radio that are not fully understood at present, the Ericsson radio is going to be used for this contact. ARISS thanks everyone in advance for their assistance. Due to continuing Space X operations, the above times are subject to last minute changes or cancellations.

[ANS thanks ARISS for the above information]

NASA Summer 2013 Internship Applications Close on March 15

The NASA One Stop Shopping Initiative, or OSSI, strives to provide students at all institutions of higher education access to a portfolio of internship, fellowship and scholarship opportunities offered by NASA mission directorates and centers.

Visit the Office of Education Infrastructure Division LaunchPad to find information on internship, fellowship and scholarship opportunities. The site features the OSSI online application for recruiting NASA Interns, Fellows and Scholars, or NIFS. This innovative system allows students to search and apply for all types of higher-education NASA internship, fellowship and scholarship opportunities in one location. A single application places the student in the applicant pool for consideration by all NASA mentors.

Applications for summer 2013 opportunities are due March 15, 2013.

To find available opportunities and to fill out an OSSI online application for recruiting NIFS, visit https://intern.nasa.gov/index.html.

Inquiries about the OSSI should be submitted via https://intern.nasa.gov/oic/.

[ANS thanks NASA Education Express Message, March 7, 2013 for the above information]

Microsoft Blocking arrl.net and arrl.org E-mail Addresses

The ARRL IT staff has been notified that Microsoft is blocking e-mail to the more than 20,000 members who use the arrl.net e-mail forwarding service to forward e-mail to Microsoft domains (hotmail.com, msn.com, live.com and outlook.com). In addition, the blockage is also affecting those members of the ARRL's Field Organization and other ARRL volunteers who use an arrl.org alias e-mail address to have e-mail delivered to an address with a Microsoft domain. According to ARRL Information Technology Manager Michael Keane, K1MK, the IT staff is working to have these blocks

lifted and e-mail delivery restored to normal operation as quickly as possible.

[ANS thanks the ARRL Letter March 7, 2013 for the above information]

Satellite Shorts From All Over

+ Mike Rupprecht DK3WN has produced a summary of all active amateur radio satellites with frequencies and links to more detailed information. See: http://www.dk3wn.info/p/?page_id)535

+ Here is another one of the outstandingly cool time-lapse photography-videos from the ISS: http://tinyurl.com/cool-ISS-video (youtube)

+ SpaceRef.com posted video of the March 4 SpaceX Dragon docking with the International Space Station: http://tinyurl.com/SpaceRef-Dragon-Docking (SpaceRef.com)

+ AMSAT-UK gets nice recognition in this article about STRaND-1: http://spaceref.com/news/viewpr.html?pid@267

+ The on-line CQ Newsroom posted news of amateur radio participation during the recent Plasma Shadowing Experiment aboard the ISS. This story and other amateur radio news can be read at: http://cqnewsroom.blogspot.com/

+ The VHF Plus column by Joe Lynch, N6CL in the March 2013 CQ Magazine discusses the Fox-1 satellite (pages 78-79).

+ This coming week is the best time to watch for the Comet PanSTARRS. Viewing information and diagrams are posted at: http://www.skyandtelescope.com/letsgo/whatsuptonight/194257261.html

+ HAM RADIO 2013 Convention, organized by Deutscher Amateur Radio Club will take place from Friday, June 28 through Sunday, June 30, 2013 in Friedrichshafen, Germany.

[ANS thanks everyone for the above information]

/EX

In addition to regular membership, AMSAT offers membership in the President's Club. Members of the President's Club, as sustaining donors to AMSAT Project Funds, will be eligible to receive additional benefits. Application forms are available from the AMSAT Office.

Primary and secondary school students are eligible for membership at one-half the standard yearly rate. Post-secondary school students enrolled in at least half time status shall be eligible for the stu-

dent rate for a maximum of 6 post-secondary years in this status. Contact Martha at the AMSAT Office for additional student membership information. And with that please keep in mind when in 1987 Ivan Sutherland, when asked "How could you possibly have done the first interactive graphics program, the first non-procedural programming language, the first object-oriented software system, all in one year?" ... replied, "Well, I didn't know it was hard."

73,
This week's ANS Editor,
JoAnne Maenpaa, K9JKM

42. Re: Radio Meteor Obs. Bull. February 2013

Newsgroup: rec.radio.amateur.space
Date: 2013-03-10 18:29:13 UTC
From: Chris Steyaert <observations@rmob.org>
Message-ID: <q4kpj8l9h1hdfjili3hdfmcf4s98rgm0ub@4ax.com>
Source record: 19

> Were there observed a greater number than usual this last February?
>
> Bob Clark

No. Compare with past years:

http://rmob.org/articles.php?lng=en&pg=28

Regards,

Chris

On Wed, 6 Mar 2013 12:49:21 -0800 (PST), Robert Clark <rgregoryclark@gmail.com>
wrote:

>On Mar 6, 2:19 pm, Chris Steyaert <observati...@rmob.org> wrote:
>> Radio Meteor Observation Bulletin No. 235 of February 2013 (72 K) is available
>> now as
>>
>>   http://www.rmob.org/rmobtext/rmob1302.txt
>>
>> More information and the visual presentation of the hourly forward scatter
>> counts can be found on
>>
>>   http://www.rmob.org
>>
>>   Chris
>
> Were there observed a greater number than usual this last February?
>
> Bob Clark

43. Weekly Highlights of Solar and Geomagnetic Activity, 04 - 10 March 2013

Newsgroup: rec.radio.amateur.space
Date: 2013-03-11 15:30:09 UTC
From: SWPC.Webmaster@noaa.gov
Message-ID: <20130311153001.5E5C833C8E@panix2.panix.com>
Source record: 20
Cross-posted to: rec.radio.amateur.misc,rec.radio.amateur.dx,rec.radio.amateur.space,rec.radio.shortwave,rec.radio.info

```
:Product: Weekly Highlights and Forecasts
:Issued: 2013 Mar 11 0413 UTC
# Prepared by the US Dept. of Commerce, NOAA, Space Weather Prediction Center
# Product description and SWPC contact on the Web
# http://www.swpc.noaa.gov/weekly.html
#
# Weekly Highlights and Forecasts
#
Highlights of Solar and Geomagnetic Activity
04 - 10 March 2013

Solar activity ranged from very low to moderate levels. A majority
of the week was dominated by very low levels with only B-class
events observed on 04, 06 and 08 - 10 March. Activity increased to
moderate levels on 05 March when Region 1686 (S13, L=263, class/area
Dac/140 on 06 March) produced an impulsive M1/Sf flare at 05/0754
UTC. Associated with this event were weak, low frequency radio
emissions including a Type II signature with an estimated shock
velocity of 1011 km/s. Later on 05 March, this region produced a C1
event at 2044 UTC as well as another C1 event at 08/1644 UTC as it
rotated off the visible disk. The other spotted regions on the disk
were quiet and stable through the period. No Earth-directed CMEs
were detected during the week.

No proton events were observed at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit was at
high levels 04 - 08 March, reaching a peak flux of 7905 pfu at
06/1925 UTC. Flux levels decayed to moderate levels on 09 - 10
March.

Geomagnetic field activity was at predominately quiet levels with an
isolated unsettled period observed at 05/0000 - 0300 UTC. Solar wind
speed, as measured at the ACE spacecraft, ranged from a high of
about 500 km/s early on 04 March and exhibited a slow, steady decay
in speed through the week, ending the period near 340 km/s. Total
field measurements ranged from 1 nT to 9 nT while interplanetary
magnetic field Bz ranged between +/- 5 nT. The Phi angle began the
period in a mostly negative (towards) orientation through about
06/0800 UTC. Through the remainder of the period, field orientation
was variable, shifting from negative to positive (away).

Forecast of Solar and Geomagnetic Activity
11 March - 06 April 2013
```

Solar activity is likely to be low through the period. A slight chance for M-class activity exists through 16 March while Region 1689 remains on the disk, and again from 21 March - 03 April with the return of old Region 1686 (S12, L=263).

No proton events are expected at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit is expected to be at normal to moderate levels through 28 March. Moderate to high levels are possible from 29 March - 04 April with the return of a recurrent coronal hole high speed stream (CH HSS). Normal to moderate levels are expected for the remainder of the period.

Geomagnetic field activity is expected to be predominately quiet to unsettled. Active periods are possible on 28 March due to CH HSS effects.

44. WSR-070 AMSAT Weekly Satellite Report

Newsgroup: rec.radio.amateur.space
Date: 2013-03-12 02:11:15 UTC
From: JoAnne Maenpaa <k9jkm@comcast.net>
Message-ID: <000501ce1ec6$8e81eb40$ab85c1c0$@net>
Source record: 21
Cross-posted to: rec.radio.amateur.space,rec.radio.info

```
This report is organized into four (4) parts.
Part 1 (S1) - operational analog amateur satellites
Part 2 (S2) - operational digital amateur satellites
Part 3 (S3) - non - operational satellites
Part 4 (S4) - deborbited/returned satellites

SB SAT @ AMSAT W8ISS $WSR-070.S1
WSR 070 Part 1 03/11/2013

AMSAT NEWS SERVICE BULLETIN 070.S1
FROM AMSAT HQ SILVER SPRING, MD, March 11, 2013
TO ALL RADIO AMATEURS
BID: $WSR-070.S1

PW-Sat
Catalog Number: 38083
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: On Orbit

Uplink: 435.020 MHz FM
Downlink: 145.900 MHz DSB

Beacon:

Callsign:

URL:

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=132
[02112013]
=====
DO-64 Delfi-C3
Catalog number: 32789
Launch Date: April 28, 2008 0354z
Launch site: Satish Dhawan Space Centre, India

Status: Operational
Current Mode: Science Mode - Beacon ONLY

Telemetry: 145.870 MHz

Downlink: 145.880 to 145.920 MHz
Uplink: 435.530 to 435.570 MHz
```

Delfi-C3 web page: http://www.delfic3.nl/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=68
[02112013]
=====
VO-52 HAMSAT
Catalog number: 28650
Launch Date: May 05, 2005 0444z
Launch site: Satish Dhawan Space Centre, India

Status: Operational
Current Mode: U/v - Dutch Transponder

Frequencies:
Indian Transponder:
Uplink: 435.220 to 435.280 MHz LSB/CW
Downlink: 145.930 to 145.870 MHz USB/CW

Dutch Transponder:
Uplink: 435.225 to 435.275 MHz LSB/CW
Downlink: 145.925 to 145.875 MHz USB/CW

Indian Beacon: 145.9360 MHZ CW
Dutch Beacon: 145.860 MHz 12WPM with CW message

Mode and Antenna Polarization:
V: LHCP
U: RHCP

Official Webpage: http://www.amsatindia.org/hamsat.htm

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=30

To know what transponder is switched on please listen for the beacon
that is active. Each transponder has a different beacon.
[02112013]
=====
SO-50 SAUDISAT-1C
Catalog number: 27607
Launch date: December 20, 2002 1700z
Launch site: Baikonur, Kazakhstan

Status: Operational

Current Mode: V/u

Uplink: 145.850 MHz FM - 67.0 Hz PL tone
Downlink: 436.795 MHz

Mode and Antenna Polarization:
V: Linear
U: Linear

Official Webpage: http://saudisat.kacst.edu.sa/index.shtml
(not up and running currently)

To switch the transmitter on, you need to send a CTCSS tone of 74.4
Hz. The order of operation is thus: (allow for Doppler as necessary):
1) Transmit on 145.850 MHz with a tone of 74.4 Hz to arm the 10 minute
timer on board the spacecraft.
2) Now transmit on 145.850 MHz (FM Voice) using 67.0 Hz to PT the re-
peater on and off within the 10 Minute window.
3) Sending the 74.4 tone again within the 10 minute window will reset
the 10 minute timer.
[02112013]
=====
FO-29 JAS-2
Catalog number: 24278
Launch Date: August 17, 1996

Status: Operational
Current Mode: V/u (Mode JA)

Voice/CW (Mode JA)
Uplink: 145.90 to 146.00 MHz CW/LSB
Downlink: 435.80 to 435.90 MHz CW/USB
Beacon: 435.795 MHz

Digital Mode JD
Uplinks: 145.850 MHz FM
145.870 MHz FM
145.910 MHz FM
Downlink: 435.910 MHz 1200-baud BPSK or 9600-baud FSK
Callsign: 8J1JCS
Digitalker: 435.910 MHz

Mode and Antenna Polarization:
V: RHCP
U: RHCP

For current operational schedule for FO-29:
http://www.ne.jp/asahi/m-arai/gkz/satinfo/fo29e.htm

JARL English webpage:
http://www.jarl.or.jp/English/5_Fuji/ejasmenu.htm

AMSAT-NA Webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID
=5&retURL=/satellites/status.php

Mineo Wakita, JE9PEL, has created a simple decoder program for FO29's
CW telemetry downlink: http://www.ne.jp/asahi/hamradio/je9pel/
fo29cwts.htm
[02112013]
=====
AO-7 AMSAT OSCAR 7
Catalog number: 07530

Launch Date: November 15, 1974
Launch site: Vandenberg AFB, California, USA

Status: Operational

Current Mode: Alternating between Mode A and B every 24 hours

Uplink: 145.850 to 145.950 MHz CW/USB Mode A
432.125 to 432.175 MHz CW/LSB Mode B
Downlink: 29.400 to 29.500 MHz CW/USB Mode A (1W PEP)
145.975 to 145.925 MHz CW/USB Mode B (8W PEP)
145.975 to 145.925 MHz CW/USB Mode C (2W PEP)
Beacons: 29.502 MHz CW
145.972 MHz CW
435.100 MHz CW
2304.100 MHz CW

Official Webpage:
http://www.amsat.org/amsat-new/satellites/sat_summary/ao7.php
[02112013]
=====
INTERNATIONAL SPACE STATION (ISS) - ARISS
Catalog number: 25544
Launch date: November 20, 1998 0640z (ZARYA module)
Launch sites: Baikonur, Kazakhstan
Kourou, French Guiana
Uchinoura Space Center, Japan
Kennedy Space Center, Titusville, Florida, USA

Status: Operational

Current Active Modes: FM Repeater - OFF
Voice - V/v
BBS - V/v
2m APRS - V/v
2m Digi - V/v
70cm APRS - ?
70cm Digi - ?
SSTV - V/v

Expedition 34 Crew (November 2012 - March 2013):
Commander: Kevin Ford KF5GPP
Flight Engineer: Oleg Novitskiy
Flight Engineer: Evgeny Tarelkin
Flight Engineer: Roman Romanenko
Flight Engineer: Chris Hadfield KC5RNJ/VA3OOG
Flight Engineer: Tom Marshburn KE5HOC

Available Modes and Frequencies:
Digital/APRS:
Worldwide 2m packet uplink: 145.825 MHz FM 1k2
Worldwide 2m packet downlink: 145.825 Mhz FM 1k2
Worldwide 70cm packet uplink: 437.550 Mhz FM 1k2

Worldwide 70cm packet downlink: 437.550 Mhz FM 1k2

Voice:
Region 1 voice uplink: 145.200 MHz FM
Region 2/3 voice uplink: 144.490 MHz FM
Worldwide downlink: 145.800 MHz FM

Crossband Repeater:
Repeater Uplinks: 1269.650 MHz FM
437.800 MHz FM
145.990 MHz FM - 67.0 PL (Kenwood)
Repeater Downlink: 145.800 MHz FM
437.800 MHz FM (Kenwood)

SSTV Robot 36:
Downlink: 145.800 MHz FM

Mode and Antenna Polarization:
V: Linear
U: Linear

Callsigns:
Belgian: OR4ISS
German: DP0ISS
Russian: RS0ISS
RZ3DZR
United States: NA1SS
2m Packet Mailbox: RS0ISS-11
2m Digipeater alias: ARISS
70cm Packet Mailbox: RS0ISS-1
70cm Digipeater callsign: RS0ISS
70cm Digipeater alias: ARISS

Official ARISS Webpage: http://www.rac.ca/ariss
ISS Fan Club Webpage: http://www.issfanclub.com
APRS tracking page: http://www.ariss.net/

ISS Daily Crew Schedule: http://spaceflight.nasa.gov/station/timelines
Remember that the crew operates on UTC time. Also, all of the time
line is NOT translated from Russian and posted.
[02112013]
NNNN
/EX

SB SAT @ AMSAT W8ISS $WSR-070.S2
WSR 070 Part 2 03/11/2013

AMSAT NEWS SERVICE BULLETIN 070.S2
FROM AMSAT HQ SILVER SPRING, MD, March 11, 2013
TO ALL RADIO AMATEURS
BID: $WSR-070.S2

STRaND-1
Catalog Number:
Launch Date: February 25, 2013 12:31z
Launch Site: Satish Dhawan Space Centre, India

Status: Operational

Uplink:
Downlink:437.568MHz 9k6 FSK

Beacon: None(?)

Callsign:

URL: http://www.sstl.co.uk/Missions/STRaND-1--Launched-2013
[03042013]
=====
Fitsat-1
Catalog number: 38853
Launch Date: October 04, 2012
Launch site: Kibo Japanese Experiment Module, International Space
Station

Status: Operational

Uplink:
Downlink(s): 437.445MHz 1k2 AFSK
5840.00 MHz 115k2 data
LED CW (200w pulses)

Beacon(s): 437.250 MHz CW

Callsign: NIWAKA

URL: http://carpcomm.com/satellite/fitsat1
[10292012]
=====
TechEdSat
Catalog number: 38854
Launch date: October 04, 2012
Launch site: Kibo Japanese Experiment Module, International Space
Station

Uplink(s):
Downlink(s): 437.465 1k2 AFSK

Beacon(s):

Callsign:

URL:http://www.techedsat.com/
[10152012]
=====
We Wish
Catalog number: 38856
Launch date: October 04,2012

Launch Site: Kibo Japanese Experiment Module, International Space
Station

Uplink(s):
Downlink(s): 437.505MHz 1k2 AFSK
437.505MHz SSTV

Beacon(s): 437.505MHz CW

Callsign: JQ1ZIJ

URL:
[10152012]
=====
F-1
Catalog number: 38855
Launch Date: October 04, 2012
Launch Site: Kibo Japanese Experiment Module, International Space
Station

Uplink(s):
Downlink(s): 145.980MHz 1k2 AFSK
437.485MHz FM moduled CW

Baecon(s):

Callsign: XV1VN

URL: http://fspace.edu.vn/
[10152012]
=====
Aeneas
Catalog Number: 38760
Launch Date: September 13, 2012 2139z
Launch Site: Wallops Island, Virginia, USA

Status: On Orbit

Uplink: WiFi 2425MHz
Downlink:
WiFi: 2425MHz
Spread Spectrum: Somewhere in the 70cm band

Beacon: 437.600MHz 1k2 ax25 every 10 seconds

Callsign:

URL:
[10012012]
=====
CSSWE (Colorado Student Space Weather Experiment)
Catalog Number: 38761
Launch Date: September 12, 2012 2139z
Launch Site: Wallops Island, Virginia, USA

Status: On Orbit

Uplink:
Downlink: 437.345MHz 9k6 with ax.25

Beacon:

Callsign:

URL:
[10012012]
=====
CP5 (Polysat)
Catalog Number: 38763
Launch Date: September 12, 2012 2139z
Launch Site: Wallops Island, Virginia, USA

Status: On Orbit

Uplink:
Downlink: 437.405MHz AFSK on LSB ax.25 over NRZI at 1k2 baud,
every 2
minutes, begins 3.5 hours after first turn-on

Beacon:

Callsign:

URL:
[10012012]
=====
CXBN (Cosmic X-Ray Background Nanosatellite)
Catalog Number: 38762
Launch Date: September 12, 2012 2139z
Launch Site: Wallops Island, Virginia, USA

Status: On Orbit

Uplink:
Downlink: 437.525MHz GFSK ax.25

Beacon:

Callsign:

URL:
[10012012]
=====
Proiteres
Catalog Number: 38756
Launch Date: September 09, 2012 2139z
Launch Site: Satish Dhawan Space Centre, India

Status: On Orbit

Uplink:
Downlink: 437.485MHz FM/AFSK

Beacon:

Callsign: JL3YZK

URL:
[10012012]
=====
RS-40 MiR (Yubileiny-2)
Catalog Number: 38735
Launch Date: July 28, 2012
Launch Site: Plesetsk Missile and Space Complex, Russia

Status: On Orbit

Uplink:
Downlink(s): 435.265 MHz
435.365 MHz

Beacon:

Callsign:

URL:
[08272012]
=====
HORYU-II
Catalog number: 38340
Launch Date: May 17, 2012 1639z

Status: On Orbit

Uplink: 145.??? MHz
Downlink: 437.375 MHz CW/AX25/FSK

Beacon: 437.375 MHz CW

Callsign: JG6YBW

URL:

IARU Coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=216
[10012012]
=====
XaTcobeo
Catalog Number: 38082
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: Operational

Uplink:
Downlink: 437.365 MHz FFSK with AX.25

Beacon:

Callsign:

URL:

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=135
[100162012]
=====
UniCubeSat
Catalog Number: 38085(?)
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: Operational

Uplink:
Downlink: 437.305 MHz 9k6 bps GMSK

Beacon:

Callsign:

URL:
http://www.gaussteam.com/index.php?option=com_content&view=article&id=
96:unicu
besat&catid=36:unicubesat&Itemid=183

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=133
[10012012]
=====
Robusta
Catalog Number: 38083(?)
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: On Orbit

Uplink:
Downlink: 437.325 MHz 1k2 FM telemetry (data every 3 min, 20 sec.
burst)

Beacon:

Callsign:

URL:

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=122
[10012012]
=====
MO-72 MaSat-1
Catalog Number: 38081

Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: Operational

Uplink:
Downlink: 437.345 MHz GFSK 625/1250 bps
437.345 MHz CW

Beacon:

Callsign:

URL:

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=126
[10012012]
=====
Goliat
Catalog Number: 38084(?)
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: Operational

Uplink:
Downlink: 437.485 MHz 1k2 AFSK

Beacon:

Callsign:

URL:

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=98
[10012012]
=====
E-St@r
Catalog Number: 38079
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: On Orbit

Uplink:
Downlink: 437.445 MHz 1k2 bps AFSK

Beacon:

Callsign:

URL:

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=130
[10012012]
=====
ALMASat-1
Catalog Number: 38078
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: On Orbit

Uplink:
Downlink: 437.465 MHz 1k2 bps FSK
2407.850 MHz

Beacon:

Callsign:

URL:

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=39
[10012012]
=====
RS-39 Chibis-M
Catalog Number: 38051
Launch Date: October 30, 2011 10:11:00 UTC
Launch site: Tyuratam (Baikonur Cosmodrome), Kazakhstan

Status: Operational

Uplink:
Downlink:

Beacon: 435.315 MHz CW
435.215 MHz CW

Callsign:

URL:

IARU coordination status page:
[07302012]
=====
JUGNU
Catalog Number: 37839
Launch Date: October 12, 2011 05:30:00 UTC
Launch site: Satish Dhawan Space Centre, India

Status: On Orbit

Uplink: 145.??? MHz 1k2 (mode?)
Downlink: 437.505 MHz 9k6 (mode?)

Beacon: 437.275 MHz 15 wpm (?) CW

Callsign:

URL: http://www.iitk.ac.in/me/jugnu/index.htm

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=160
[07092012]
=====
SRMSAT
Catalog Number: 37841
Launch Date: October 12, 2011 05:30:00 UTC
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Uplink: 145.900 MHz 1k AX.25 (speed?)
Downlink: 437.500 MHz 2k4 AX.25

Beacon: 437.425 MHz 12 wpm CW

Callsign:

URL: http://srmsat.in/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=181
[01282013]
=====
HRBE (E1P Explorer 1 [Prime] CubeSat (E1P-U2))
Catalog Number: 37855
Launch Date: October 28, 2011
Launch site: Vandenberg Air Force Base, California, USA

Status: On Orbit

Uplink: 437.305 MHz (???)
Downlink: 437.505 MHz AX.25 (SSB?)

Beacon:

Callsign:

URL: http://ssel.montana.edu/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=116
[01122012]
=====
M-Cubed
Catalog Number: 37855
Launch Date: October 28, 2011
Launch site: Vandenberg Air Force Base, California, USA

Status: On Orbit

Uplink:
Downlink: 437.485 MHz AX.25

Beacon:

Callsign:

URL: http://umcubed.org/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=215
[01122012]
=====
RAX-2
Catalog Number: 37853
Launch Date: October 28, 2011
Launch site: Vandenberg Air Force Base, California, USA

Status: Operational

Uplink:
Downlink: 437.345MHz 9k6 GMSK

Beacon:

Callsign:

URL: http://rax.engin.umich.edu//

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=221
[03232012]
=====
AO-71 AubieSat-1
Catalog Number: 37854
Launch Date: October 28, 2011
Launch site: Vandenberg Air Force Base, California, USA

Status: On Orbit

Uplink:
Downlink: 437.475 MHz 1k2 AX.25

Beacon: 437.475 MHz CW

Callsign: KI4NQO

URL: http://www.space.auburn.edu/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=148
[12262011]
=====
O/OREOS
Catalog Number: 37224
Launch Date: November 20, 2010

Launch site: Kodiak Launch Complex, Alaska, USA

Status: On Orbit

Uplink:
Downlink: 437.035 MHZ AX.25

Beacon:

Callsign:

URL: http://www.ooreos.org/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=146
[02092011]
=====
Rax-1 Radio Aurora Explorer
Catalog Number: 37223
Launch Date: November 20, 2010
Launch site: Kodiak Launch Complex, Alaska, USA

Status: On Orbit

Uplink:
Downlink: 437.505 MHz 9k6 GMSK

Beacon:

Callsign: RAX-1

URL: http://rax.engin.umich.edu/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=165
[02092011]
=====
FO-69 Fastrac-1 Sara Lily
Catalog Number: 37227
Launch Date: November 20, 2010
Launch site: Kodiak Launch Complex, Alaska, USA

Status: Operational

Uplink 1: 145.980 MHz 1k2 baud
Uplink 2: 145.825 MHz 1k2 baud
Downlink: 437.345 MHz 1k2 and 9k6 baud

Beacon: 437.435 MHz 1k2 AX.25

Callsign: Fast1

URL: http://fastrac.ae.utexas.edu/index.php

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=83

[07052011]
=====
FO-70 Fastrac-2 Emma
Catalog Number: 37380
Launch Date: November 20, 2010
Launch site: Kodiak Launch Complex, Alaska, USA

Status: Operational

Uplink 1: 435.025 MHz 1k2 baud
Uplink 2: 437.435 MHz 9k6 baud
Downlink: 145.825 MHz 1k2 and 9k6 baud

Beacon: 145.825 MHz 1k2 AX.25

Callsign: Fast2

URL: http://fastrac.ae.utexas.edu/index.php

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=84
[12162011]
=====
StudSat
Catalog Number: 36796
Launch Date: July 12, 2010 0352z
Launch site: Satish Dhawan Space Centre, India

Status: On Orbit

Uplink: 437.505MHz, 9600bps FSK
Downlink: 437.505MHz, 9600bps FSK
Beacon : 437.505MHz, 20bps ASK

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=164
[02092011]
=====
TIsat-1
Catalog Number: 36799
Launch Date: July 12, 2010 0352z
Launch site: Satish Dhawan Space Centre, India

Status: On orbit

Callsign: HB9DE

Uplink: 145.980MHz FM, AFSK
Downlink: 437.305MHz FM, AFSK
Beacon: 437.305MHz CW

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=118
[02092011]

=====
SwissCube
Catalog Number: 35932
Launch Date: September 23, 2009 0621z
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Callsign: HB9EG

Beacon(100mw): 437.5050MHz CW
Beacon(1w): 437.5050MHz FSK 1k2bps

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=109
[02092011]
=====
UWE-2
Catalog Number: 35934
Launch Date: September 23, 2009 0621z
Launch site: Satish Dhawan Space Centre, India

Status: In Orbit

Beacon(500mw): 437.3850 MHz AFSK 1k2bps
437.3850 MHz FSK 9k6bps

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=110
[02092011]
=====
ITUpsAT1
Catalog Number: 35935
Launch Date: September 23, 2009 0621z
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Beacon(100mw): 437.325MHz CW
Beacon(1w): 437.325MHz 19k2bps

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=113
[02092011]
=====
BEESAT
Catalog Number: 35933
Launch Date: September 23, 2009 0621z
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Callsign: DP0BEE

Beacon(100mw): 436.000MHz CW
Beacon(500mw): 436.000MHz GMSK 4k8bps
Beacon(500mw): 436.000MHz GMSK 9k6bp
[02092011]
=====
SOHLA-1 (ASTRO TECH.)
Catalog Number: 33496
Launch Date: January 23, 2009 0354z
Launch site: Tanegashima Space Center, Japan

Status: Operational

Proposed Frequencies and Modes:
Downlink: 437.505 MHz AFSK/CW
Beacon: 437.505 MHz AFSK/CW

Callsign:

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=101
[02092011]
=====
KAGAYAKI (Solan Co.)
Catalog Number: 33495
Launch Date: January 23, 2009 0354z
Launch site: Tanegashima Space Center, Japan

Status: In Orbit

Downlink: 437.375 MHZ FSK9k6/CW
Beacon: 437.375 MHz FSK9k6/CW

IARU coordination status page:

AMSAT-NA webpage:

[02092011]
=====
STARS (Kagawa Univ.) (Twin Satellites)
Catalog Number: 33498
Launch Date: January 23, 2009 0354z
Launch site: Tanegashima Space Center, Japan

Status: Operational ?

Downlinks: 437.485 MHz FM/CW
437.465 MHz FM/CW
Beacons: 437.305 MHz FM/CW
437.275 MHz FM/CW

Callsigns: JR5YBN
JR5YBO

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=99

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=121&retURL
=/satellites/status.php
[02092011]
=====
KKS-1 (Tokyo MCIT)
Catalog Number: 33499
Launch Date: January 23, 2009 0354z
Launch site: Tanegashima Space Center, Japan

Status: Operational

Downlink: 437.455 MHz AFSK/CW
Beacon: 437.385 MHz AFSK/CW

Callsign: JQ1YYY

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=107

AMSAT-NA webapge:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=120&retURL
=/satellites/status.php
[20092011]
=====
PRISM (Tokyo Univ.)
Catalog Number: 33493
Launch Date: January 23, 2009 0354z
Launch site: Tanegashima Space Center, Japan

Status: Operational

Uplink: 145.xxx MHz AFSK 1k2
Downlink: 437.425 MHz AFSK 1k2
Beacon: 437.250 MHz CW

Callsign: JQ1YCX

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=97

Read terms and conditions of operations at the PRISM web page to find
out how
to properly operate on the satellite and to get the uplink frequency.
It
has
been asked that the uplink frequency not be given out untik you have
read and
understood the terms of usage.

URL:
http://www.space.t.u-tokyo.ac.jp/prism/en/HAMservice.html
[10282012]
=====
RS-30 Radio Sputnik 30 (Yubileiny)

Catalog Number: 32953
Launch Date: May 23, 2008 1520z
Launch site: Plesetsk Missile and Space Complex, Russia

Status: Operational

Curent Modes: Telemetry
Audio
Images

Downlinks: 435.315 MHz
435.215 MHz

AMSAT-NA website:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=115&ret
URL=/satellites/status.php

Official website:
http://www.npopm.com/?cid=leoca&caid=43
[02092011]
=====
CanX-2
Catalog number: 32790
Launch Date: April 28, 2008 0354z
Launch site: Satish Dhawan Space Centre, India

Status: Operational in range of ground station only

Downlink: 437.478 MHz GFSK

For the latest project status update please visit the Can X-2 web
page: http://www.utias-sfl.net/nanosatellites/CanX2/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=46
[02092011]
=====
AAUSAT-II
Catalog number: 32788
Launch Date: April 28, 2008 0354z
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Downlink: 437.425 MHz 1k2 baud packet

For the latest project status update please visit the AAUSAT-II web
page:
http://www.aausatii.aau.dk/homepage/index.php?language=en&page=home

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=60
[02092011]
=====

CO-65 CUTE-1.7+APD II
Catalog number: 32785
Launch Date: April 28, 2008 0354z
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Downlink: 437.475 MHz 9k6 Packet
Uplink: 1267.600 Mhz

Telemetry Beacon:
Downlink: 437.2750 MHz CW

For the latest project status update please visit the Cute-1.7+APD II
web page: http://lss.mes.titech.ac.jp/ssp/cute1.7/index_e.html

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=78

Command Station blog website:
http://lss.mes.titech.ac.jp/ssp/cute1.7/blog/

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=112&retURL
=/satellites/status.php
[03232012]
=====
Compass-1
Catalog number: 32787
Launch Date: April 28, 2008 0354z
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Current Mode: dependant on last received command

Uplink: 145.980 MHz FM
Downlink: 437.275 Mhz CW
437.405 MHz Packet

For the latest project status update please visit the Compass 1 web
page: http://www.raumfahrt.fh-aachen.de/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=52

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=114&retURL
=/satellites/status.php
[06162011]
=====
CO-66 Seeds II
Catalog number: 32791
Launch Date: April 28, 2008 0354z

Launch site: Satish Dhawan Space Centre, India

Status: Operational

Downlink: 437.485 MHz

Callsign: JQ1YGU

For the latest project status update please visit the Seeds 2 web
page: http://cubesat.aero.cst.nihon-u.ac.jp/english/seeds_2_e.html

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=36

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=113&retURL
=/satellites/status.php
[073092011]
=====
CAPE-1
Catalog Number: 31130
Launch Date: April 17,2007 0702z
Launch site: Baikonur, Kazakhstan

Status: Intermittent

Current Mode: /u

TLM Downlink: 435.245 MHz 9600 bs FSK AX.25
CW Beacon: 435.245 MHz CW

Callsign: K5USL

TLM and CW interchange every 30 seconds.

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=94&retURL=
/satellites/status.php

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=72
[02092011]
=====
CP3
Catalog Number: 31129
Launch Date: April 17,2007 0702z
Launch site: Baikonur, Kazakhstan

Status: Operational

Current Mode: /u

Downlink: 436.845 MHz 1200 bps AFSK AX.25

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=74

[02092011]
=====
CO-58 CubeSat XI-V
Catalog number: 28895
Launch Date: October 27, 2005 0652z
Launch site: Plesetsk Missile and Space Complex, Russia

Status: Operational - CW Beacon only

Current Mode: /u

Telemetry Downlink: 437.4250 MHz AFSK 1200bps using AFK protocol
Beacon: 437.2750 MHz CW

Callsign: JQ1YGW

Official Webpage: http://www.space.t.u-tokyo.ac.jp/cubesat/mission/V/

Pictures received by Mineo Wakita - JE9PEL:
http://www.ne.jp/asahi/hamradio/je9pel/xivpicte.htm

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=37
[02092011]
=====
CO-57 CubeSat XI-IV
Catalog number: 27848
Launch date: June 30, 2003 1415z
Launch site: Plesetsk Missile and Space Complex, Russia

Status: ?????

Current Mode: /u

Beacon: 436.8475 MHz CW
Telemetry : 437.4900 MHz AFSK 1200 BPS

Callsign: JQ1YGW

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=96&retURL
=/satellites/status.php

Official Webpage: http://www.space.t.u-tokyo.ac.jp/cubesat/mission/V/
[02092011]
=====
QuakeSat
Catalog Number: 27845
Launch Date: June 30, 2003 1415z
Launch site: Plesetsk Missile and Space Complex, Russia

Status: Telemetry only

Current Mode: 9600 baud data packet

Mode U packet
Downlink: 436.675 MHz 9k6 BPS

Quakesat webpage:
http://www.quakefinder.com/services/quakesat-ssite/
[02252011]
=====
CO-55 Cute-1.7+APD II
Catalog Number: 27844
Launch date: June 30, 2003 1415z
Launch site: Plesetsk Missile and Space Complex, Russia

Status: Operational

Current Mode: CW downlink worldwide
AX25 Packet with uplink command over Japan only

Mode U Telemetry
Downlink: 437.4000 MHz AFSK 1200 BPS

Mode U TLM Beacon
Downlink: 436.8375 MHz CW

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=69&retURL
=/satellites/status.php

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=78
[02092011]
=====
NO-44 PCSAT
Catalog number: 26931
Launch Date: September 30, 2001 0240z
Launch site: Kodiak Launch Complex, Alaska, USA

Status: Operational

Current Mode: V/v

General Usage Uplink/Downlink: 145.827 MHz 1200 Baud
Special Usage Downlink: 144.390 Mhz 1200 Baud

PCSAT APRS page: http://pcsat.aprs.org

aprstlm Telemetry Decoder program:
http://www.xciv.org/~iain/aprstlm/v1.2/
[10292012]
=====
RS-22 RADIO SPORT 22 (MOZHAYETS 4)
Catalog number: 27939
Launch Date: September 27, 2003 0612z
Launch site: Plesetsk Missile and Space Complex, Russia

Status: Operational - 70cm cw only

Current Mode: /u

CW Beacon - 435.352 MHz
145.818 MHz

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=76&retURL
=/satellites/status.php
[02092011]
=====
LO-19 LUSAT
Catalog number: 20442
Launch date: January 22, 1990
Launch site: Kourou, French Guiana

Status: CW Beacon only

Uplinks: 145.840 MHz 1200-baud Manchester FSK
145.860 MHz 1200-baud Manchester FSK
145.880 MHz 1200-baud Manchester FSK
145.900 MHz 1200-baud Manchester FSK

CW downlink: 437.125 MHz

Digital downlink: 437.150 MHz SSB (RC-BPSK 1200-baud PSK)

Broadcast Callsign: LUSAT-11
BBS: LUSAT-12

General information and telemetry samples can be found at:
www.telecable.es/personales/ea1bcu
[02092011]
=====
UO-11 OSCAR-11
Catalog number: 14781
Launch Date: March 1, 1984
Launch site: Vandenburg AFB, California, USA

Status: Operational ?

Current Mode: /v

Telemetry Downlink: 145.825 MHz FM 1200 AFSK
UHFBeacon: 435.025 MHz
Mode-S Beacon: 2401.500 MHz

Mode and Antenna Polarization:
V: RHCP
S: LHCP

Webpage: http://www.users.zetnet.co.uk/clivew/
MPEG3 files: http://www.ne.jp/asahi/hamradio/je9pel/uo11tlme.htm
[07052011]
=====
INTERNATIONAL SPACE STATION (ISS) - ARISS

Catalog number: 25544
Launch date: November 20, 1998 0640z (ZARYA module)
Launch sites: Baikonur, Kazakhstan
Kourou, French Guiana
Uchinoura Space Center, Japan
Kennedy Space Center, Titusville, Florida, USA

Status: Operational

Current Active Modes: FM Repeater - OFF
Voice - V/v
BBS - V/v
2m APRS - V/v
2m Digi - V/v
70cm APRS - ?
70cm Digi - ?
SSTV - V/v

Expedition 34 Crew (November 2012 - March 2013):
Commander: Kevin Ford KF5GPP
Flight Engineer: Oleg Novitskiy
Flight Engineer: Evgeny Tarelkin
Flight Engineer: Roman Romanenko
Flight Engineer: Chris Hadfield KC5RNJ/VA3OOG
Flight Engineer: Tom Marshburn KE5HOC

Available Modes and Frequencies:
Digital/APRS:
Worldwide 2m packet uplink: 145.825 MHz FM 1k2
Worldwide 2m packet downlink: 145.825 Mhz FM 1k2
Worldwide 70cm packet uplink: 437.550 Mhz FM 1k2
Worldwide 70cm packet downlink: 437.550 Mhz FM 1k2

Voice:
Region 1 voice uplink: 145.200 MHz FM
Region 2/3 voice uplink: 144.490 MHz FM
Worldwide downlink: 145.800 MHz FM

Crossband Repeater:
Repeater Uplinks: 1269.650 MHz FM
437.800 MHz FM
145.990 MHz FM - 67.0 PL (Kenwood)
Repeater Downlink: 145.800 MHz FM
437.800 MHz FM (Kenwood)

SSTV Robot 36:
Downlink: 145.800 MHz FM

Mode and Antenna Polarization:
V: Linear
U: Linear

Callsigns:
Belgian: OR4ISS
German: DP0ISS
Russian: RS0ISS
RZ3DZR
United States: NA1SS
2m Packet Mailbox: RS0ISS-11
2m Digipeater alias: ARISS
70cm Packet Mailbox: RS0ISS-1
70cm Digipeater callsign: RS0ISS
70cm Digipeater alias: ARISS

Official ARISS Webpage: http://www.rac.ca/ariss
ISS Fan Club Webpage: http://www.issfanclub.com
APRS tracking page: http://www.ariss.net/

ISS Daily Crew Schedule: http://spaceflight.nasa.gov/station/timelines
Remember that the crew operates on UTC time. Also, all of the time
line is NOT translated from Russian and posted.
[12242012]
NNNN
/EX

SB SAT @ AMSAT W8ISS $WSR-070.S3
WSR 070 Part 3 03/11/2013

AMSAT NEWS SERVICE BULLETIN 070.S3
FROM AMSAT HQ SILVER SPRING, MD, March 11, 2013
TO ALL RADIO AMATEURS
BID: $WSR-070.S3

THE FOLLOWING ARE IN ORBIT BUT ARE NON-OPERATIONAL AT THIS TIME:

NANOSAIL-D
Catalog Number: 37361
Ejection Date: January 17, 2011

Status: Non - Operational

Downlink: 437.270 MHz AX.25

URL: http://nanosaild.engr.scu.edu/dashboard.htm

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=115
[07302012]
=====
HO-68 HOPE-1 (CAS-1) (XW-1)
Catalog Number: 36122
Launch Date: December 15, 2009 0231z
Launch site: Taiyuan Space Center, PRC

Status: Telemetry only

Callsign:
Broadcast: BJ1SA-11
BBS: BJ1SA-12

Uplinks: 145.8250 MHz FM, PL 67.0 Hz.
145.9250 - 145.9750 MHz SSB/CW
145.8250 MHz AFSK 1200 BPS
Downlinks: 435.6750 MHz FM
435.7650 - 435.7150 MHz SSB/CW
435.6750 MHz AFSK 1200 BPS

Beacon: 435.7900 MHz CW

Mode and Antenna Polarization:
V: LHCP 2.0dBi max
U: RHCP 3.0dBi max

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=108

For more information about XW-1 (CAS-1):
http://
[04302012]
=====
SO-67 SumbandilaSat
Catalog Number: 35870
Launch Date: September 17, 2009 1555z
Launch site: Baikonur, Kazakhstan

Status: Non - Operational

Callsign: ZS0SUM

Uplink: 145.875MHz FM tone 233.6 Hz
Downlink: 435.345MHz FM

Mode and Antenna Polarization:
V: Linear
U: Linear

For more information about SO-67:
http://www.amsatsa.org.za/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=88
[01272012]
=====
CP4
Catalog Number: 31132
Launch Date: April 17, 2007

Status: Non-Operational

Current Mode: /u

TLM Downlink: 437.325 MHz 1200 bps FSK AX.25
CW Beacon: 437.325 MHz CW

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=79
[09062010]
=====
LIBERTAD-1
Catalog Number: 31128
Launch Date: April 17, 2007

Status: Non-Operational

Current Mode: V/u APRS Packet ax25

Callsign: 5K3L

Uplink: 145.825 MHz 1200 AFSK ax25 APRS
Downlink: 437.399 MHz 1200 AFSK ax25 APRS

Telemetry Beacon: 437.4050 MHz 1200 AFSK ax25

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=76
[09062010]
=====
PO-63 PEHUENSAT-1
Catalog Number: 29712
Launch Date: January 10, 2007

Status: Non-Operational

Current Mode: V/v

Uplink/Downlink: 145.825 Mhz FM
Voice Recorder: 145.825 Mhz FM

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=51
[09062010]
=====
NCUBE-2
Catalog number: 28897
Launch Date: October 27, 2005

Status: Still attached to XO-53 (SSETI)?

Proposed Callsign: TBA
Proposed Transmit Frequency: 437.305
2407.250

Official Website: http://www.ncube.no

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=24
[09062010]

=====
XO-53 SSETI
Catalog number: 28894
Launch Date: October 27, 2005

Status: Non-operational

Voice Uplink: 437.250 MHz FM 67Hz CTCSS
Voice Downlink: 2401.835 MHz FM
Packet Up/Downlink: 437.250 MHz 9k6 packet
Packet Downlink 2401.835 MHz 38k4 packet

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=54
[09062010]
=====
UWE-1
Catalog Number: 28892
Launch Date: October 27, 2005

Status: Non-Operational

Mode U Telemetry
Downlink: 437.5050 MHz 9600 AFSK

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=53
[09062010]
=====
AO-51 ECHO
Catalog number: 28375
Launch date: June 29, 2004 0745z
Launch site: Baikonur, Kazakhstan

Status: Non - Operational

Current Mode(s):
Voice repeater: V/u
Uplink: 145.880 MHz FM
Downlink: 435.150 MHz FM

Telemetry: Recovery efforts
Downlink: 435.150MHz 9k6

Analog voice downlink: 435.300 MHz FM
435.150 MHz FM
2401.200 Mhz FM
Analog voice uplink: 145.860 MHZ FM
145.880 MHz USB
145.880 MHz FM
145.920 MHz FM
145.920 MHz FM - 67 Hz PL tone burst
1268.705 MHz FM

Digital Downlinks: 435.150 MHz FM 38k4 PBP, 1 watt output
435.150 MHz FM 9k6 Pacsat Broadcast
Protocol
2401.200 MHz FM 38k4 bps, AX.25
Digital Uplink: 145.860 MHz FM 9k6 Pacsat Broadcast
Protocol
1268.703 mhz FM 9k6 Pacsat Broadcast
Protocol
Beacon: 435.150 MHz

Mode and Antenna Polarization:
T: Linear
V: Linear
U: TX A (usually digital)LHCP
TX B (usually analog) RHCP
L: Linear
S: Linear

Broadcast: PECHO-11
BBS: PECHO-12

Official Webpage: http://www.amsat.org/amsat-new/echo/CTNews.php

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=19
[12062011]
=====
CANX-1
Catalog Number: 27847
Launch Date: June 30, 2003

Status: Non-Operational

Downlink: 437.8800 MHz AFSK 1k2bps
[06052009]
=====
DTUSAT
Catalog Number: 27842
Launch Date: June 30, 2003

Status: Non-Operational

Current Mode: 2k4 AFSK Packet last reported

Downlink: 437.475MHz

Officail webpage: http://dtusat1.dtusat.dtu.dk/

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=101&retURL
=satellites/all_oscars.php
[02212009]
=====
AO-49 AATiS OSCAR-49 (SAFIR-M)

Catalog number: 27605
Launch Date: December 20, 2002

Status: Non-operational.

Uplink: 435.275 MHz 1200-baud AFSK
Downlink: 145.825 MHz 9600-baud FSK
(optional voice message)

Broadcast callsign: DP0AIS

Official webpage: http://amend.gmxhome.de
[01222007]
=====
MO-46 TIUNGSAT-1
Catalog number: 26548
Launch date: September 26, 2000

Status: Telemetry only

Uplinks: 145.850 MHz
145.925 MHz 9600-baud FSK
Downlink: 437.325 MHz

Broadcast callsign: MYSAT3-11
BBS: MYSAT3-12

TiungSat-1 is Malaysia's first micro-satellite and in addition to
commercial land and weather imaging payloads offers FM and FSK
Amateur Radio communication.

TiungSat-1, named after the mynah bird of Malaysia, was developed as
a collaborative effort between the Malaysian government and Surrey
Satellite Technology Ltd.
[03302009]
=====
NO-45 SAPPHIRE
Catalog number: 26932
Launch Date: September 30, 2001

Status: Non-Operational

Downlink: 437.095 MHz 1200 baud AX-25 AFSK
Uplink: 145.945 MHz UI Digipeater
Digi Callsign: KE6QMD

Everyone is welcome to use the digipeating/APRS features of Sapphire,
as per the user service agreement located at the following URL:
http://web.usna.navy.mil/~bruninga/pcsat/contract.txt
[03132005]
=====
SO-42 SAUDISAT-1B
Catalog number: 26549
Launch date: September 26, 2000

Status: Non-Operational

Downlink: 437.075 MHz

Broadcast Callsign: SASAT2-11
BBS: SASAT2-12

Further information is available at:
http://www.amsat.org/amsat/sats/n7hpr/so42.html
[01222007]
=====
SO-41 SAUDISAT-1A
Catalog number: 26545
Launch Date: September 26, 2000

Status: Non-Operational

Uplink: 145.850 MHz
Downlink: 436.775 MHz

Broadcast Callsign: SASAT1-11
BBS: SASAT1-12

Further information is available at:
http://www.amsat.org/amsat/sats/n7hpr/so41.html
[01222007]
=====
AO-40 AMSAT OSCAR 40
Catalog number: 26609
Launch Date: November 16, 2000

Status: Non-Operational

Uplinks

V-band: 145.840 - 145.990 MHz CW/LSB
U-band: 435.550 - 435.800 MHz CW/LSB
L1-band: 1269.250 - 1269.500 MHz CW/LSB
L2-band: 1268.325 - 1268.575 MHz CW/LSB

Downlinks

S2-band: 2401.225 - 2401.475 MHz CW/USB
K-band: 24048.010 - 24048.060 MHz CW/USB
Beacon: 2401.323 MHz
24048.035 MHz

P3-D Telemetry Beacons (IHU)

BEACON General Beacon(GB) Middle Beacon(MB) Engineering Beacon(EB)
2 m none 145.898 MHz none
70cm 435.438 MHz 435.588 MHz 435.838 MHz
13cm(1) 2400.188 MHz 2400.338 MHz 2400.588 MHz
13cm(2) 2401.173 MHz 2401.323 MHz 2401.573 MHz
3cm 10450.975 MHz 10451.125 MHz 10451.375 MHz

1.5cm 24047.885 MHz 24048.035 MHz 24048.285 MHz
[07162007]
=====
OO-38 OPAL
Catalog Number: 26063
Launch Date: January 27, 2000

Status: Non-Operational

Mode U TLM Beacon
Downlink: 437.1000 MHz 9600 FSK
[08132007]
=====
UO-36 UoSAT-12
Catalog number: 25693
Launch date: April 21, 1999

Status: Unknown

Uplink: 145.960 MHz (9600-baud FSK)
Downlinks: 437.025 MHz
437.400 MHz

Broadcast Callsign: UO121-11
BBS: UO121-12

The VK5HI viewer shareware for UO-36 is available on the AMSAT-NA web
site at the following URL:
ftp://ftp.amsat.org/amsat/software/win32/display/ccddsp97-119.zip
[01222007]
=====
SO-35 SUNSAT
Catalog Number: 25636
Launch date:February 23, 1999

Status: Non-Operational

Downlink: Mode B Repeater: 436.291 MHz
Mode J Digipeater: 436.250 MHz

Uplinks: Mode B Repeater: 145.825 MHz
Mode J Digipeater: 145.825 MHz
145.900 MHz

For more information of SUNSAT vist the satellite web site:
http://esl.ee.sun.ac.za/projects/sunsat/
[01222007]
=====
PO-34 PANSAT
Catalog number: 25520
Launch date: October 30, 1998

Status: Telemetry downloads only

Uplink/downlink: 436.500 MHz

Official Webpage: http://www.sp.nps.navy.mil/pansat/
[05092004]
=====
SO-33 SEDSAT-1
Catalog number: 25509
Launch date: October 24, 1998

Status: Semi-operational

Downlink: 437.910 MHz FM (9600-baud FSK)

The satellite is not currently available for uplink transmissions and
the image and transponder recovery efforts have been unsuccessful.

For more information on SedSat-1 visit the satellite web site:
http://seds.uah.edu/projects/sedsat/sedsat.htm
[09042006]
=====
GO-32 Gurwin TechSat-1B
Catalog number: 25397
Launch Date: July 10, 1998

Status: Non-Operational

Current Modes:
Telemetry : /u

Downlink: 435.225 MHz FM (9600-baud FSK)
435.325 Mhz - Not Available - temperature problems
Uplinks: 145.850 FM
145.890 FM
145.930 FM
1269.700 FM
1269.800 FM
1269.900 FM

Broadcast Callsign: 4XTECH-11
BBS Callsign: 4XTECH-12

More information of GO-32 can be found at:
http://asri.technion.ac.il/techsat/

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=14&retURL
=/satellites/status.php
[07172010]
=====
TO-31 TMSAT-1
Catalog number: 25396
Launch Date: July 10, 1998

Status: Non-operational

Uplink: 145.925 MHz 9600 baud FSK
Downlink: 436.925 MHz 9600 baud FSK

Broadcast callsign: TMSAT1-11
BBS: TMSAT1-12
[05012006]
=====
MO-30 UNAMSAT-2
Catalog Number: 24305
Launch Date: September 5, 1996

Status: Non-operational

Downlink: 435.1380 MHz AFSK 1200 BPS
Downlink: 435.2060 MHz AFSK 1200 BPS
Uplink: 145.8150 MHz AFSK 1200 BPS
Uplink: 145.8350 MHz AFSK 1200 BPS
Uplink: 145.8550 MHz AFSK 1200 BPS
Uplink: 145.8750 MHz AFSK 1200 BPS
[06042009]
=====
PO-28 POSAT-1
Catalog number: 22829
Launch Date: September 25, 1993

Status: Non-operational

Downlink: 429.950
Uplink: Not until handover back to Amatuer usage

Broadcast callsign: POSAT1-11
BBS callsign: POSAT1-12

AMSAT Webpage: http://www.amsat.org/amsat/sats/n7hpr/po28.html
POSAT-1 webpage:
http://www.ee.surrey.ac.uk/SSC/CSER/UOSAT/missions/posat1.html
[01012009]
=====
AO-27 AMRAD
Catalog number: 22825
Launch Date: September 26, 1993 0140z
Launch site: Kourou, French Guiana

Status: Recovery efforts in progress

Current Mode: V/u

Uplink: 145.850 MHz FM
Downlink: 436.797 MHz FM

Mode and Antenna Polarization:
V: Linear
U: Linear

Official Webpage: http://www.ao27.org
[12032012]
=====
IO-26 ITAMSAT
Catalog number: 22826
Launch Date: September 26, 1993 0140z

Status: PSK carrier only

Current Mode:

Uplinks: 145.875 MHz FM 1200-baud
145.900 MHz FM 1200-baud
145.925 MHz FM 1200-baud
145.950 MHz FM 1200-baud

Downlink: 435.808 MHz PSK

Broadcast Callsign: ITMSAT-11
BBS: ITMSAT-12

Official webpage: http://www.itamsat.org
AMSAT Webpage: http://www.amsat.org/amsat/sats/n7hpr/io26.html
[01212007]
=====
KO-25 KITSAT
Catalog number: 22828
Launch date: September 26, 1993

Status: Non-operational

Uplink: 145.980 MHz FM 9600-baud FSK
Downlink: 436.500 MHz FM

Broadcast Callsign: HL02-11
BBS: HL02-12
[05092004]
=====
AO-24 ARSENE
Catalog Number: 22654
Launch Date: May 13, 1993

Status: Non-operational

Uplink: 435.0625 MHz FM 1k2bps AFSK
435.1125 MHz FM 1k2bps AFSK
435.1375 MHz FM 1k2bps AFSK
Downlink: 145.9750 MHz FM 1k2bps AFSK
2446.5025 MHz FM 1k2bps AFSK

Beacon: 2446.4700 MHz CW

Broadcast callsign:
BBS:
[12162009]

=====
KO-23 KITSAT
Catalog number: 22077
Launch date: August 10, 1992

Status: Non-operational

Uplink: 145.900 MHz FM (9600-baud FSK)
Downlink: 435.170 MHz FM

Broadcast Callsign: HLO1-11
BBS: HLO1-12
[01222007]
=====
UO-22 UOSAT
Catalog number: 21575
Launch date: July 17, 1991

Status: Non-Operational

Uplink: 145.900 FM 9600-baud FSK
Downlink: 435.120 MHz FM

Broadcast Callsign: UOSAT5-11
BBS: UOSAT5-12
[01222007]
=====
AO-21 AMSAT-OSCAR 21
Catalog Number: 21087
Launch Date: January 29, 1991

Status: Non-Operational

Uplink: 435.041 MHz FM DSP
Downlink: 145.983 MHz FM DSP
[01222007]
=====
FO-20 JAS-1b
Catalog number: 20480
Launch Date: February 07, 1990

Status: Non-Operational

Beacons: 435.795 MHz CW
435.910 MHz AX25

Voice Transponder:
Uplink: 145.900 to 146.000 MHz CW/LSB
Downlink: 435.800 to 435.900 MHz CW/USB

Digital Transponder:
Uplinks: 145.850 MHz
145.870 MHz
145.890 MHz

145.910 MHz
Downlink: 435.910 MHz

More FO-20 info can be found at:
http://www.amsat.org/amsat/sats/n7hpr/fo20.html
[01152007]
=====
WO-18 WEBERSAT
Catalog Number: 20441
Launch Date: January 22, 1990

Status: Non-Operational

Downlink: 437.104 MHz SSB 1200 Baud PSK AX.25
[05012006]
=====
DO-17 Dove
Catalog Number: 20440
Launch Date: January 22, 1990

Status: Non-operational.

Downlink: 145.825 MHz FM 1200 Baud AFSK
Beacon: 2401.220 MHz
[05012006]
=====
AO-16 PACSAT
Catalog number: 20439
Launch Date: January 22, 1990

Status: non-operational

Current Mode: V/u

Uplink: 145.900 MHz FM 1200-baud Manchester FSK (reserved)
145.920 MHz FM VOICE
145.940 MHz FM 1200-baud Manchester FSK (reserved)
145.960 MHz FM 1200-baud Manchester FSK (reserved)

Downlink: 437.026 MHz USB VOICE
(1200-baud PSK - MBL Telemetry Only)

Mode-S Beacon: 2401.1428 MHz [NO FUTURE OPERATIONS PLANNED]

Mode and Antenna Polarization:
U: RC 437.050 MHz RHCP
PSK 437.026 MHz LHCP
V: Linear

Broadcast Callsign: PACSAT-11
BBS: PACSAT-12

AO-16 AMSAT Webpage: http://www.amsat.org/amsat/sats/n7hpr/ao16.html
[07242009]

=====
UO-15 UoSAT-4
Catalog Number: 20438
Launch Date: January 22, 1990

Status: Non-operational

Uplink: ?
Downlink: 435.1250MHz (?)
435.1200MHz (?)
[06042009]
=====
UO-14 UoSAT-3
Catalog number: 20437
Launch date: January 22, 1990

Status: Non-operational

Uplink: 145.975 MHz FM
Downlink: 435.070 MHz FM
[05092004]
=====
FO-12 Fuji-OSCAR 12
Catalog Number: 16909
Launch Date: August 12, 1986

Status: Non-Operational

Mode V/U (J) Linear Transponder (Inverting):
Uplink: 145.9000 - 146.0000 MHz SSB/CW
Downlink 435.8000 - 435.9000 MHz SSB/CW

Mode V/U (J) Packet:
Uplink: 145.8500 MHz MFSK 1200 BPS
Uplink: 145.8700 MHz MFSK 1200 BPS
Uplink: 145.8900 MHz MFSK 1200 BPS
Uplink: 145.9100 MHz MFSK 1200 BPS

Downlink 435.9100 MHz PSK 1200 BPS

Telemetry Beacon: 435.7950 MHz SSB/CW
[01152007]
=====
AO-10 OSCAR 10
Catalog number: 14129
Launch Date: June 16, 1983

Status: Non-operational

Uplink: 435.030 to 435.180 MHz CW/LSB
Downlink: 145.975 to 145.825 MHz CW/USB

Beacon: 145.810 MHz (unmodulated carrier)

W4SM has more information about the satellite at the following URL:
http://www.cstone.net/~w4sm/AO-10.html
[05092004]
=====
AO-8 AMSAT-OSCAR 8
Catalog Number: 10703
Launch Date: March 3, 1978

Status: Non-Operational

Mode V/U (J) Linear Transponder (Non-Inverting): Non-Operational
Uplink: 145.9000 - 146.0000 MHz SSB/CW
Downlink 435.1990 - 435.2000 MHz SSB/CW

Mode V/U (J) TLM Beacon: Non-Operational
Downlink 435.0950 MHz CW

Mode V/A (A) Linear Transponder (Non-Inverting): Non-Operational
Uplink: 145.8500 - 145.9000 MHz SSB/CW
Downlink 29.4000 - 29.5000 MHz SSB/CW

Mode V/A (A) TLM Beacon: Non-Operational
Downlink 29.4020 MHz CW
[01152007]
=====
AO-6 AMSAT-OSCAR 6
Catalog Number: 06236
Launch Date: October 15, 1972

Status: Non-Operational

Uplink: 145.9000 - 146.0000 MHz SSB/CW
Downlink: 29.4500 - 29.5500 MHz SSB/CW
Beacons: 29.450 MHz
435.100 MHz
[01312008]
=====
AO-5 Australis-OSCAR 5
Catalog Number: 04321
Launch Date: January 23, 1970

Status: Non-Operational

Telemetry Beacons: 144.0500 MHz CW
29.4500 MHz CW
[01152007]
=====
OSCAR III
Catalog Number: 01293
Launch Date: March 09, 1965

Status: Non-Operational

Uplink: 145.9750 - 146.0250 MHz SSB/CW
Downlink: 144.3250 - 144.3750 MHz SSB/CW

[01012007]
=====
RS-15 RADIO SPORT RS-15
Catalog number: 23439
Launch Date: December 26, 1994

Status: Non-operational

Uplink: 145.858 to 145.898 MHz CW/USB
Downlink: 29.354 to 29.394 MHz CW/USB

Beacon 1: 29.352 MHz (intermittent)
Beacon 2: 29.398 MHz

SSB meeting frequency: 29.380 MHz (unofficial)
[06202004]
=====
RS-13 RADIO SPORT RS-13
Catalog number: 21089
Launch date: February 5, 1991

Status: Non-operational

Uplink: 21.260 to 21.300 MHz CW/USB
Downlink: 145.860 to 145.900 MHz CW/USB

Beacon: 145.860 MHz

Robot: 145.908 MHz
[05232004]
=====
RS-12 RADIO SPORT RS-12
Catalog number: 21089
Launch date: February 5, 1991

Status: Non-operational

Uplink: 21.210 to 21.250 MHz CW/USB
Downlink: 29.410 to 29.450 MHz CW/USB

Beacon: 29.408 MHz

Robot: 29.454 MHz
[05232004]
NNNN
/EX

ANS is released worldwide via the AMSAT ANS e-mail reflector and a
live
radiocast on the AMSAT-NA 20-meter net held each Sunday on 14.282 MHz.
Pre-net operations start at 18:00 UTC, with current ANS bulletins
trans-
mitted to the eastern U.S. at 19:00 UTC and to the western U.S. at
19:30

UTC.

Information on AMSAT-NA is available at the following URL:
http://www.amsat.org

Mailing address:
AMSAT-NA
850 Sligo Avenue, Suite 600
Silver Spring, Maryland 20910-4703

Voice: 301-589-6062
888-322-6728
FAX: 301-608-3410

Currently, AMSAT-NA supports the following (free) mailing lists:

* AMSAT News Service (ANS)
* General satellite discussion (AMSAT-BB)
* Orbit data (KEPS)
* Manned space missions (SAREX)
* District of Columbia area (AMSAT-DC)
* New England area (AMSAT-NE)
* AMSAT Educational Liaison mailing list (AMSAT-EDU)
* AMSAT K-12 Educational Liaison mailing list (AMSAT-K12)

A daily digest version is available for each list.

To subscribe, or for more list information, visit the following URL:
http://www.amsat.org/mailman/listinfo/ans

In addition to regular membership, AMSAT-NA offers membership in the President's Club. Members of the President's Club, as sustaining donors to AMSAT Project Funds, will be eligible to receive additional benefits. Application forms are available from the AMSAT-NA Office.

This week's Weekly Satellite Report Editor is James French, W8ISS.

ANS is always dedicated to past ANS editor 'BJ' Arts, WT0N, and to the memory of longtime AMSAT supporters Werner Haas, DJ5KQ, Dennis Kitchen, G0FCL and John Branegan GM4IHJ.

Please send any amateur satellite news or reports to: ans-editor{at}
amsat.org
NNNN
/EX

45. ANS-076 AMSAT News Service Weekly Bulletins

Newsgroup: rec.radio.amateur.space
Date: 2013-03-17 18:47:52 UTC
From: JoAnne Maenpaa <k9jkm@comcast.net>
Message-ID: <001d01ce233f$e817aaa0$b846ffe0$@net>
Source record: 22
Cross-posted to: rec.radio.amateur.space,rec.radio.info

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AMSAT NEWS SERVICE
ANS-076

ANS is a free, weekly, news and information service of AMSAT North
America, The
Radio Amateur Satellite Corporation. ANS reports on the activities of
a
worldwide group of Amateur Radio operators who share an active
interest in
designing, building, launching and communicating through analog and
digital
Amateur Radio satellites.

Please send any amateur satellite news or reports to:

ans-editor@amsat.org

In this edition:

* Call for Volunteers for the AMSAT Booth at Dayton 2013
* FCC Guidance On Obtaining Licenses For Small Satellites
* Satellite DX in Pacific
* European CubeSat Symposium

SB SAT @ AMSAT $ANS-076.01
ANS-076 AMSAT News Service Weekly Bulletins

AMSAT News Service Bulletin 055.01
From AMSAT HQ SILVER SPRING, MD.
March 17, 2013
To All RADIO AMATEURS
BID: $ANS-076.01

**********************************************************************
* AMSAT-DC Spring Workshop on Portable Satellite Ground *
* Stations - Saturday, March 23, 2013, at the NASA Goddard Space *
* Flight Center in Greenbelt, MD beginning at 9:00AM EDT. Pre- *
* registration is required. To register call Martha at the AMSAT *
* Office 301-589-6062 no later than Thursday, March 21. Sorry, *
* no late registration at the door! See full details at: *
* http://patkilroy.com/amsat-dc/ *
* *
* The suggested donation for advanced registration and admission *
* for non-AMSAT members is $25. Registration for AMSAT members *
* registering in advance is free. *
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Call for Volunteers for the AMSAT Booth at Dayton 2013

The 2013 Dayton Hamvention, sponsored by the Dayton Amateur Radio Association
will be held this year on May 17-19, 2013. "Dayton" is the
largest hamfest in the United States, and AMSAT will be there again
this year.

You can assist AMSAT by volunteering to help staff the booth. While there, you
will meet other AMSAT members, interact with the satellite
designers, builders, and operators, and enjoy all that Dayton has to
offer.

People are needed to assist with the setup of the booth on Thursday, May 16 (11
a.m. to 4 p.m.), to staff the booth Friday (9 to 6), Saturday (9 to 5),
and Sunday (9 to 1), and packup on Sunday (1 to 3). Most people volunteer for
one or more 2 hour shifts in the booth.

Unfortunately, Gould Smith WA4SXM, AMSAT's VP-User Services and long-time
Dayton Team Leader will be unable to attend Dayton this year because of health
issues. AMSAT President Barry Baines, WD4ASW has asked Steve Belter, N9IP to
take the lead on AMSAT's Dayton Operations and he has graciously agreed to
coordinate AMSAT's activities at Dayton for this year. Steve is a long-time
volunteer who has assisted AMSAT at Hamvention in prior years. Please send an
e-mail to Steve Belter,n9ip@amsat.org, if you are willing to help AMSAT at the
Hamvention. Please advise by April 30thl if you're available to assist.

Additional information on the Hamvention can be found at www.hamvention.org.
Information on AMSAT's extensive Hamvention activities, including details about
the informal "Get Together" on Thursday evening, the joint AMSAT-TAPR Dinner on
Friday evening, the AMSAT Forum on Saturday, satellite demonstrations, etc.
will be available on the AMSAT website (www.amsat.org) "soon."

(ANS thanks AMSAT President Barry Baines, WD4ASW and Steve Belter, N9IP for the

above information)

FCC Guidance On Obtaining Licenses For Small Satellites

The Federal Communications Commission (FCC) released a Public Notice to provide guidance concerning FCC licensing of spectrum for use by small satellites, including satellites that fall within the categories of pico-satellites, nano-satellites and cubesats. The advent of such small satellite designs has brought with it dramatically lower launch costs, enabling a larger range of organizations to directly launch satellites. Institutions such as universities and research organizations that previously found it cost prohibitive to launch their own satellite can now participate in the exploration of space. Many of these participants may be unfamiliar with the spectrum licensing, scheduling and other requirements attendant on satellites. This Public Notice seeks to alert affected parties of these requirements and thus aid small satellite operators in the planning necessary for a successful launch operation.

The Commission's rules set forth three different procedures for licensing satellites. The Commission's Part 25 rules are the primary vehicle for satellite licensing, and are used for licensing a wide range of satellite operations, including commercial communication and remote sensing satellites. The Commission's Part 5 rules cover experimental operations. The Commission's Part 97 rules cover amateur radio service satellite operations.

Currently, many small satellite missions involve experimental operations - i.e. scientific and research missions, including missions conducted under government contract - and many operate in amateur frequency bands. These satellites are therefore licensed under Parts 5 or 97 of FCC rules. Because of the significant interest in small satellites in the amateur and research communities, the primary focus of this Public Notice is on such operations, although

certain
guidance in this Public Notice is also applicable to Part 25
licensing.
licenses well in advance of a launch.

The full public notice can be found at
http://www.fcc.gov/document/guidance-obtaining-licenses-small-satellit
es

[ANS thanks the FCC for the above information]

Satellite DX in Pacific

JD1, OGASAWARA. Makoto, JI5RPT, will once again be active as JD1BLY
from Chichijima Island (AS-031), Ogasawara, between April 28th and May
4th.
Activity will be on 40-6 meters, including the satellites, using CW,
SSB and the Digital modes (NO 6m EME). QSL via his home callsign
JI5RPT.

His log search will be available on his Web site at:
http://www.ji5rpt.com/jd1
He will also use Twitter to inform his real-time activities at:
http://twitter.com/jd1bly

[ANS thanks the Ohio/Penn DX Bulletin for the above information]

European CubeSat Symposium

The 5th European CubeSat Symposium that will take place on 3-5 June
2013 at the
premises of Royal Military Academy in Brussels, Belgium.

This is the biggest CubeSat related event in Europe and last year it
attracted
more than 250 participants and industrial exhibits of 7 specialized
companies.
This year even greater participation is expected.
Applicants from all around the
world are welcome.

The call for proposals and the online abstract
submission system is available at
www.CubeSatSymposium.eu

The important dates are:

15 Mar 2013: Deadline for the submission of abstracts
15 April 2013: Notification of acceptance
15 May 2013: Publication of the programme and the abstracts
24 May 2013: Deadline for online registration

3-5 June 2013: 5th European CubeSat Symposium at ERM, Brussels
(3 full days)
6 June 2013: 6th QB50 Workshop at VKI, Brussels (by invitation
only)

The session topics are:

CubeSat networks/constellations/swarms
Scientific instruments/sensors on CubeSats
Biology and microgravity experiments on CubeSats
Technology demonstration on CubeSats
Micropropulsion subsystems, formation flying
Attitude determination and control subsystem
Telecommunications, ground stations, ground station networks
Orbital dynamics for CubeSats, lifetimes of CubeSats in orbit
CubeSat flight experience, lessons learned
Other topics (e.g. expandable solar arrays, atmospheric re-entry,
CubeSats
as free-flying payloads for the exploration of the Solar
System)
Future technologies on CubeSats
Deployment systems for CubeSats

[ANS thanks Cem O. Asma for the above information]

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In addition to regular membership, AMSAT offers membership in the President's Club. Members of the President's Club, as sustaining donors to AMSAT Project Funds, will be eligible to receive additional benefits. Application forms are available from the AMSAT Office.

Primary and secondary school students are eligible for membership at one-half the standard yearly rate. Post-secondary school students enrolled in at least half time status shall be eligible for the student rate for a maximum of 6 post-secondary years in this status. Contact Martha at the AMSAT Office for additional student membership information.

73,
This week's ANS Editor,
Lee McLamb, KU4OS
ku4os at amsat dot org

46. Weekly Highlights of Solar and Geomagnetic Activity, 11 - 17 March 2013

Newsgroup: rec.radio.amateur.space
Date: 2013-03-18 15:30:07 UTC
From: SWPC.Webmaster@noaa.gov
Message-ID: <20130318153001.7692133C8E@panix2.panix.com>
Source record: 23
Cross-posted to: rec.radio.amateur.misc,rec.radio.amateur.dx,rec.radio.amateur.space,rec.radio.shortwave,rec.radio.info

```
:Product: Weekly Highlights and Forecasts
:Issued: 2013 Mar 18 0210 UTC
# Prepared by the US Dept. of Commerce, NOAA, Space Weather Prediction Center
# Product description and SWPC contact on the Web
# http://www.swpc.noaa.gov/weekly.html
#
# Weekly Highlights and Forecasts
#
Highlights of Solar and Geomagnetic Activity
11 - 17 March 2013

Solar activity was low to moderate. Low activity dominated the week
with only low level C-class events observed on 11-14 and 16-17
March. A long duration C2/1f flare associated with a filament
eruption near N20E05 occurred at around 12/1107 UTC. An associated
asymmetric full halo was assessed to be Earth-directed with a
velocity in the low 700 km/s range at departure. Activity increased
to moderate levels on 15 March when Region 1692 (N09, L=077,
class/area Hhx/250 on 09 March) produced an M1/1f long duration
flare at 15/0658 UTC. This flare appeared in H-alpha imagery to
erupt along a NE to SW oriented filament channel and partially
through Region 1692 beginning at 15/0615 UTC. Associated with this
flare were a 150 sfu Tenflare, a Type IV radio sweep, and an
asymmetrical full-halo CME (estimated plane-of-sky speed of 1399
km/s). The CME first appeared in SOHO/LASCO C2 imagery at 15/0712
UTC.

A greater than 10 MeV proton event associated with the 15 March CME
began at 16/1940 UTC, reached a maximum flux of 16 pfu at 17/0700
UTC, and ended at 17/0825 UTC.

The greater than 2 MeV electron flux at geosynchronous orbit was at
normal to moderate levels throughout the period.

Geomagnetic field activity was quiet from 11-14 March. Activity
increased slightly to yield a few isolated unsettled periods on
15-16 March due to weak effects from the 12 March CME. The
geomagnetic field began at quiet levels on 17 March. At 17/0601 UTC,
a geomagnetic Sudden Impulse (41 nT on the Boulder magnetometer) was
observed as the 15 March CME became geoeffective. Minor to major
storm periods were subsequently observed with major to severe storm
periods at high latitudes for the 17/0900-2100 UTC periods.

Forecast of Solar and Geomagnetic Activity
18 March - 13 April 2013
```

Solar activity is expected to be low throughout the period. A slight chance for M-class activity exists through 20 March while Regions 1696 (N04, L=095, class/area Eai/190 on 16 March) and 1698 (S19, L=118, class/area Eao/200 on 17 March) remain on the disk, and again from 01-13 April when the two regions are expected to return to the visible disk.

No proton events are expected at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit is expected to begin the period at moderate levels but rise to high levels from 19-24 March due to effects from the 15 March CME. A decrease to normal to moderate levels is then expected through 28 March. High levels are expected from 29 March-04 April due to effects from a recurrent coronal hole high speed stream (CH HSS). A return to normal to moderate levels is expected for the remainder of the period.

Geomagnetic field activity is expected to be at quiet to minor storm levels on 18 March due to continued effects from the 15 March CME. Quiet to unsettled levels are expected to prevail throughout the remainder of the period with the exception of possible active periods on 28 March due to CH HSS effects.

47. Weekly Highlights of Solar and Geomagnetic Activity, 18 - 24 March 2013

Newsgroup: rec.radio.amateur.space
Date: 2013-03-25 15:30:08 UTC
From: SWPC.Webmaster@noaa.gov
Message-ID: <20130325153001.CF31733C8E@panix2.panix.com>
Source record: 24
Cross-posted to: rec.radio.amateur.misc,rec.radio.amateur.dx,rec.radio.amateur.space,rec.radio.shortwave,rec.radio.info

```
:Product: Weekly Highlights and Forecasts
:Issued: 2013 Mar 25 0252 UTC
# Prepared by the US Dept. of Commerce, NOAA, Space Weather Prediction Center
# Product description and SWPC contact on the Web
# http://www.swpc.noaa.gov/weekly.html
#
# Weekly Highlights and Forecasts
#
Highlights of Solar and Geomagnetic Activity
18 - 24 March 2013

Solar activity was very low to moderate. Low activity dominated the
week with low level C-class flares observed on 18-20 and March.
Activity increased to moderate levels on 21 March when Region 1692
(N09, L=077, class/area Dki/340 on 20 Mar) produced an M1flare at
21/2204 UTC. A filament eruption was observed around 19/1400 UTC
from the area surrounding Region 1695 (N10, L=055, class/area
Dao/180 on 18 Mar). A faint Earth-directed CME was associated with
this event, as well as Type II (850 km/s) and Type IV radio sweeps.
The period ended with very low levels on 23-24 March.

No proton events were observed at geosynchronous orbit. The period
began with slightly enhanced proton levels due to residual effects
from the 15 March CME but returned to background levels by 19 March.

The greater than 2 MeV electron flux at geosynchronous orbit was at
moderate to high levels. Moderate levels were observed on 18-19
March followed by an increase to high levels on 20-23 March reaching
a peak flux of 3,880 particle flux units (pfu) at 22/1640 UTC. Flux
decayed to moderate levels on 24 March.

Geomagnetic field activity was at quiet to active levels. The period
began with mostly quiet conditions from 18-20 March. An increase to
quiet to active levels was observed on 21 March due to effects from
the two CMEs related to filament activity on 17 March. Quiet
conditions prevailed for the remainder of the period with the
exception of an isolated active period at the close of 23 March.
This increase in activity was possibly related to the weak CME
observed on 19 March.

Forecast of Solar and Geomagnetic Activity
25 March - 20 April 2013

Solar activity is expected to be very low to low throughout the
period. A slight chance for M-class activity is possible from 01-13
```

April when old Regions 1692, 1696 (N04, L=095) and 1698 (S19, L=118) return to the visible disk.

No proton events are expected at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit is expected to begin the period at normal to moderate levels. High levels are expected from 29 March-04 April due to recurrent coronal hole high speed stream effects (CH HSS). A return to normal to moderate levels is expected for the remainder of the period.

Geomagnetic field activity is expected to begin the period at moslty quiet levels. Quiet to active conditions with a chance for minor storm periods are expected on 28-30 March due to recurrent CH HSS effects.

48. ANS-083 AMSAT News Service Weekly Bulletins

Newsgroup: rec.radio.amateur.space
Date: 2013-03-25 19:37:50 UTC
From: JoAnne Maenpaa <k9jkm@comcast.net>
Message-ID: <003d01ce298f$e565cfc0$b0316f40$@net>
Source record: 25
Cross-posted to: rec.radio.amateur.space,rec.radio.info

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AMSAT NEWS SERVICE
ANS-083

ANS is a free, weekly, news and information service of AMSAT North
America, The Radio Amateur Satellite Corporation. ANS reports on the
activities of a worldwide group of Amateur Radio operators who share
an active interest in designing, building, launching and
communicating through analog and digital Amateur Radio satellites.

Please send any amateur satellite news or reports to:
ans-editor@amsat.org

In this edition:

* Come See AMSAT at Dayton 2013
* Dayton Hamvention 2013 AMSAT Forum
* More 'AMSAT at Dayton' News
* ISS Expedition 35 Crew To Include Three Licensed Hams
* ARISS News
* [QB50] 5th European CubeSat Symposium - ESA sponsorship - Deadline
postponed
* March/April 2013 AMSAT Journal Heading for the Print Shop
* KiwiSAT - All systems are now flight ready
* New Swiss Small Satellite Launch System
* Raspberry Pi as WSPR transmitter up to 250 MHz
* Houston based WebSDR for 2m Ham Band
* AMSAT Helps at Monrovia HS Science Expo and ISS Downlink
* Music in Space Downlink With the International Space Station
* Argentine CubeBug-1 satellite will have amateur radio digipeater

SB SAT @ AMSAT $ANS-083.01
ANS-083 AMSAT News Service Weekly Bulletins

AMSAT News Service Bulletin 083.01
>From AMSAT HQ SILVER SPRING, MD.
March 24, 2013
To All RADIO AMATEURS
BID: $ANS-083.01

**************************************************************
* Volunteers are needed to help at the AMSAT booth at Dayton. *
* Steve Belter N9IP, is looking for volunteers to help man the *
* AMSAT booth during the 2013 Hamvention. If you are willing *
* to help at the Hamvention, please send an e-mail by April 30 *
* to Steve Belter, n9ip@amsat.org. *
```

* *
* Monitor the 'AMSAT at Dayton Hamvention 2013' link on the new *
* AMSAT Web Site http://www.amsat.org for the latest AMSAT at *
* Dayton news and developments *
****

Come See AMSAT at Dayton 2013

The 2013 Dayton Hamvention, sponsored by the Dayton Amateur Radio Association will be held this year on May 17-19, 2013. "Dayton" is the largest hamfest in the United States, and AMSAT will be there again this year.

AMSAT's theme for Dayton will be "AMSAT - A View to the Future." Come see AMSAT in Ball Arena, right across from the ARRL area and just inside the door from the Satellite Demonstration area.

The AMSAT booth will feature AMSAT Engineering, new publications, new apparel, amateur satellite hardware and software. The AMSAT Forum will be on Saturday May 18. Plan to visit all of the AMSAT activities!

+ The booth will feature an engineering model of the 1U Fox Cubesat
+ AMSAT Publications
+ AMSAT Apparel
+ Station Hardware
+ The latest version SatPC32 tracking software
+ Renew your AMSAT membership at the AMSAT booth too.

[ANS thanks JoAnne Maenpaa, K9JKM for the above information]

Dayton Hamvention 2013 AMSAT Forum

This year's AMSAT Forum will be held is on Saturday in Room 5, from 1115
to 1330 EDT. There will be an open Q&A session after the talks.

Moderator: Alan Biddle, WA4SCA

Speakers:

"AMSAT Status Report." Barry Baines, WD4ASW, AMSAT-NA President, will highlight recent activities within AMSAT and discuss some of the challenges, accomplishments, and exciting projects of the organization.

"A report on ARISS." Frank Bauer, KA3HDO, AMSAT-NA Vice President for Human Spaceflight, will discuss amateur operations on the International Space Station.

"AMSAT Fox Satellite Program," Tony Monteiro, AA2TX, AMSAT-NA Engineering VP, will present the current Status of the AMSAT Fox CubeSat Projects.

"The AMSAT-UK FUNcube CubeSat." Howard Long, G6LVB, AMSAT-UK Committee Member, will discuss the FUNcube project which will enable amateurs and students to use and learn about satellites.

"Amateur Satellites, Education, and You!" Mark Hammond, N8MH, AMSAT-NA Educational Relations VP, will discuss what satellite operators can do to support the educational goals of AMSAT.

[ANS thanks Alan WA4SCA for the above information]

More 'AMSAT at Dayton' News

+ AMSAT Hotel

The cutoff date to book a room with the AMSAT group is April 25. If you are interested in staying with AMSAT at Dayton, please call Martha at the AMSAT Office at 301-589-6062.

+ Thursday Night Dinner and Beverages at Tickets Pub and Eatery

Thursday night, May 16, 1830-???? at the Tickets Pub and Eatery in Fairborn, OH. This is a great chance to relax after a hard day's travel or setting up the AMSAT display area. Very informal. Click the 'AMSAT at Dayton Hamvention 2013' button on the new Web Site: http://www.amsat.org.

+ AMSAT/TAPR Friday Night Banquet

AMSAT/TAPR Banquet on Friday night, May 17 is one of the main AMSAT activities during the 2013 Hamvention at Dayton. Banquet tickets will not be sold at the AMSAT booth during the Hamvention so reservations must be made through the AMSAT Store. For the latest details about the Banquet go to the 'AMSAT at Dayton Hamvention 2013' button on the new Web Site: http://www.amsat.org. The link to the AMSAT Store to purchase the Banquet tickets will be found there. Tickets are $30 apiece.

+ Satellite Demonstration Area

AMSAT is encouraging everyone attending the 2013 Dayton Hamvention to come by the Satellite Demonstration Area just outside of the Ball Arena entrance for live demonstrations making contacts using the amateur satellites. There will be AMSAT volunteers there to explain how to make the contacts and during actual satellite passes. Lists of satellite pass times will be posted in the satellite demonstration area and at the AMSAT booth.

[ANS thanks AMSAT's 2013 Dayton Committee for the above information]

ISS Expedition 35 Crew To Include Three Licensed Hams

A report posted on Space-Travel.com says Russian cosmonauts Pavel Vinogradov, RV3BS and Alexander Misurkin and NASA astronaut Chris Cassidy have arrived at the Baikonur Cosmodrome in Kazakhstan to prepare for the March 29 launch to the International Space Station.

Their Soyuz spacecraft is to reach the ISS in a record six hours due to a new fast-track launch trajectory.

The ISS will have a crew of six upon arrival of the Soyuz when Vinogradov, Misurkin and Cassidy join with Russian cosmonaut Roman Romanenko, Canadian astronaut Chris Hadfield, KC5RNJ/VA3OOG, and US astronaut Thomas Marshburn, KE5HOC are already aboard the space station.

See http://tinyurl.com/March29-Launch (Space-Travel.com) for their orginal posting.

[ANS thanks Space-Travel.com for the above information]

ARISS News

Recent ARISS Contacts

+ Christ the King School, Adelaide, South Australia, Australia on 20 March 2013

A successful ARISS Contact was made with with participants at Christ the King School, Adelaide, South Australia, Australia on 20 Mar. The contact began at approximately 07:15 UTC, and lasted for about 9 minutes and 30 seconds. The contact was a telebridge between OR4ISS and IK1SLD and was audible over Italy and adjacent areas.

Established by the Sisters of the Good Samaritan, Christ the King School, Warradale, is a small, Reception to Year 5 Catholic parish school within the Brighton Parish in Adelaide. The school has approximately 190 students across 7 classes. In the Catholic tradition, they seek to provide a comprehensive Catholic education to children in a caring, faith community.

+ Ann Richards School for Young Women Leaders, Austin, TX on 20 March 2013

A successful ARISS Contact was made with with participants at Ann Richards School for Young Women Leaders, Austin, TX on 20 Mar. The contact began at approximately 14:20 UTC, and lasted for about 9 minutes and 30 seconds. The contact was a telebridge between NA1SS and VK6MJ and was audible over portions of Australia and adjacent areas.

The Ann Richards School for Young Women Leaders is a unique all-girls school founded to educate young women and give them the confidence and skills necessary to succeed in college, in their careers, and in their communities. They are a public school in the Austin Independent School District serving over 700 girls in 6th

through 12th grade. The girls partake and excel in engineering design projects and robotics competitions. The demographics of our student body mirror that of our local community. During the 2011 - 2012 school year, 61% percent of our students were Hispanic, 22% are Caucasian, 13% were African-American, 3% were Asian-American and 1% were American Indian/Alaskan Native. Two hundred of the girls were gathered as 10 of their peers asked questions on behalf of all grade levels during the ARISS contact.

+ UA Huntsville Space Hardware Club, Huntsville, AL, on 21 March 2013

A successful ARISS Contact was made with with participants at UA Huntsville Space Hardware Club, Huntsville, AL, on 21 Mar. The contact began at approximately 15:50 UTC, and lasted for about 9 minutes and 30 seconds. The contact was a direct between NA1SS and K4UAH and was audible over portions of the U.S.

The Space Hardware Club is a UA Huntsville student organization. The club is student run and is strictly volunteer. Using the capacities of a multi-disciplinary team of engineering to conceptualize, design, build, test and fly flight hardware for orbital spaceflight, high altitude ballooning, competitive mock-satellite design, build, launch competitions, and other space related engineering problems. Involvement in The Space Hardware Club allows students to experience real life time sensitive deadlines, and design payloads to mission specification. The students learn to design mechanical structures, software, and circuit boards while considering thermal forces, shock loads, and other realistic environmental limitations.

Upcoming ARISS Contacs For This Week

+ Thornton Middle School, Katy, TX on 25 Mar. The event is scheduled to begin at approximately 15:39 UTC. The duration of the contact is approximately 9 minutes and 30 seconds. The contact will be direct between NA1SS and KF5NZD. The contact should be audible over portions of the U.S. Interested parties are invited to listen in on the 145.80 MHz downlink. The contact is expected to be conducted in English.

+ Des Cardinaux School, Sainte-Rose, Laval, Quebec, Canada on 26 Mar. The event is scheduled to begin at approximately 13:13 UTC. The duration of the contact is approximately 9 minutes and 30 seconds. The contact will be a telebridge between NA1SS and K6DUE. The contact should be audible over the east coast of the U.S. Interested parties are invited to listen in on the 145.80 MHz downlink. The contact is expected to be conducted in French.

[ANS thanks ARISS for the above information]

[QB50] 5th European CubeSat Symposium - ESA sponsorship - Deadline postponed

Cem O. Asma, PhD, Aeronautics & Aerospace Dept von Karman Institute, reports, "We have good news regarding the 5th European CubeSat Symposium that
will be held on 3-5 June 2013 at Brussels, Belgium. The Education Office of European Space Agency has kindly offered scholarships to selected students to attend the European CubeSat Symposium. More information on the rules and how to apply are given at the Symposium web site:
https://cubesatsymposium.eu/

We have therefore decided to postpone the deadline of abstract submission to 29 Mar 2013 so that those who consider an ESA sponsorship can apply as well."

[ANS thanks Cem O. Asma, PhD for the above information]

March/April 2013 AMSAT Journal Heading for the Print Shop

AMSAT Journal Editor, JoAnne K9JKM reports that the March/April 2013 issue is on its way to the print shop this week. It should reach your mailbox in early to mid-April. This issue features two technical projects, operating features, and the latest news from AMSAT's officers.

We'll update you on all the content next week when the March/April Issue is completed, packed up, and ready for delivery.

Thanks for all the help from our Journal Editorial Team: Douglas Quagliana, KA2UPW/5; Mike Sedlak, K4ERA; Bernhard Jatzeck, VA6BMJ; Bill Hook, W3QBC, and Martha at the AMSAT Office.

The AMSAT Journal is pleased to publish your articles and photos of satellite operations and all aspects of amateur radio in space. Send your ideas and questions to journal at amsat.org.

[ANS thanks AMSAT Journal Editor JoAnne Maenpaa, K9JKM for the above information]

KiwiSAT - All systems are now flight ready

The KiwiSAT website reports that all hardware is complete and the KiwiSAT micro-satellite is operational. Final integration to launch ready awaits completion of command and control testing.

They say software is being developed and launch negotiation is underway in New Zealand. Earlier reports indicated that $1 million was required for a launch to a 700 km orbit.

Read the status report dated March 13, 2013 at
http://www.kiwisat.org.nz/status.html

[ANS thanks Trevor M5AKA and AMSAT-UK for the above information]

New Swiss Small Satellite Launch System

Swiss Space Systems – S3 a new Swiss aerospace company, was officially inaugurated in Payerne on Thursday, March 14, in the presence of representatives of the national authorities and of prestigious Swiss and international partners such as the ESA, Dassault Aviation, the Von Karman Institute, Sonaca, Meggitt and Stanford University. S3 aims to develop, build, certify and operate suborbital space shuttles dedicated to launching small satellites, enabling space access to be made more democratic thanks to an original system with launching costs reduced to a quarter of the present cost. The first test launches are planned to be carried out by the end of 2017.

The Swiss Space Systems launch model uses an Airbus A300, an aircraft already certified for zero gravity flights, to take the shuttle up to 10,000m on its back; the shuttle will then be launched from there. Combining the internal architecture developed by the French company Dassault for Hermes with the external architecture developed by the Belgian companies Sonaca and Space Application Services will develop the shuttle. Discussions are at an advanced stage concerning the engine supplier. The shuttle-drone will take care of the next part of the ascent up to an altitude of 80km, the height at which the upper stage will be launched in order to put the satellites into orbit. Once this operation has been completed, the shuttle will return to earth by gliding towards its launch airport, where it will be taken care of by the maintenance teams who will prepare it for a new launch.

S3 say agreements have already been signed for four launches for the Von Karman Institute.

How will the in-orbit delivery of small satellites work ? Video at http://tinyurl.com/b27atko

Swiss Space Systems – S3 http://www.s-3.ch/

[ANS thanks AMSAT-UK for the above information]

Raspberry Pi as WSPR transmitter up to 250 MHz

Guido PE1NNZ has released code that he says enables the Raspberry Pi to operate as a WSPR transmitter at HF and VHF.

Guido has modified the WsprryPi code originally developed by Dan Ankers MD1CLV. He says the Raspberry Pi requires just a Low Pass Filter (LPF) and antenna connected to the GPIO4 pin in order to function as a WSPR transmitter.

The PE1NNZ code and binary is available at https://github.com/threeme3/WsprryPi

Turning the Raspberry Pi into an FM Transmitter
http://www.southgatearc.org/news/march2013/
turning_the_raspberry_pi_into_an_fm_transmitter.htm

Dan Ankers MD1CLV WSPR
http://m0xpd.blogspot.co.uk/2013/01/raspberry-whispers.html

WSPR on the Raspberry Pi
http://www.southgatearc.org/news/march2013/
wspr_on_the_raspberry_pi.htm

[ANS thanks Southgate Amateur radio News for the above information]

Houston based WebSDR for 2m Ham Band

Thomas Krahn KT5TK has made available a Houston-based Web Software Defined Radio for the 144-146 MHz amateur radio band.

The WebSDR receiver is located in the 8th floor of a Houston office building. The receiver is a simple RTLSDR dongle with an Elonics E4000 tuner. The brand is: Terratec NOXON DAB/DAB+ USB dongle (rev 2). Currently a telescopic antenna is being used but it's planned to change to a bi-quad antenna.

Thomas notes that the Houston AMSAT NET can be heard on Tuesdays at 8pm Central Time (Wednesday 0100 UT) 0n 145.470 MHz FM. (Also available on Echolink AMSAT node.)

The Houston 2m WebSDR is available at
http://websdr.tkrahn.com:8901

[ANS thanks Southgate ARC for the above information]

AMSAT Helps at Monrovia HS Science Expo and ISS Downlink

On Saturday, March 2, the Pasadena Radio Club participated in the Monrovia High School Science Expo with the help of local AMSAT members.Set up started at 8 am and the display began at 10. Tom Berne gave students the opportunity to talk over amateur radio while Robert and Irene Allen and Kate Hutton transmitted radiograms. Tom Mikkelsen, Tim LaMarca, and Dale Hunzeker demonstrated amateur radio satellite communications with an AMSAT satellite simulator and a satellite receiving station. All spent considerable time answering questions
and sharing their ham radio experiences.

Other actives at the Science Expo included a FIRST Robotics competition, demonstrations by the Remote Control Aircraft Club, and booths from Sidewalk Astronomers, NASA, Planetary Society, FTC/FRC Robotics, and Miachi/UniTek. Stargazing activities continued into the evening.

Science Expo activities continued on Tuesday, March 5, with a NASA sponsored live International Space Station downlink. Over one thousand 5th - 12th grade Monrovian students watched as three astronauts "floated" inside the space station while answering students' questions. Tim LaMarca, Jutti Marsh, and Dale Hunzeker were in the audience. These activities are examples of ways amateur radio can work with schools in STEM (Science, Technology, Engineering, and Mathematics) education.

[ANS thanks Dale L. Hunzeker, KJ6VUC for the above information]

Music in Space Downlink With the International Space Station

Join NASA's Johnson Space Center, or JSC, Digital Learning Network for a live International Space Station downlink with astronaut Chris Hadfield, space station commander. Commander Hadfield and students from the Pasadena Independent School District's Pearl Hall Elementary will explore the many cultures and music surrounding the International Space Station partners. Students will perform songs at JSC with astronaut Dan Burbank and with space station astronaut Chris Hadfield. Students from Pearl Hall Elementary in Pasadena, Texas, and the Chris Hadfield Public School in Ontario, Canada, will speak to Chris while exploring about the connection between the arts and science, technology, engineering and mathematics.

Watch the webcast live on March 27, 2013, from 2:30-3:45 p.m. CDT* by clicking on the link below.
http://tinyurl.com/2aufnge

Questions about the program may be directed to
Patricia Moore at patricia.l.moore@nasa.gov.

*The webcast time is subject change due to communication with the space station. Please visit http://dln.nasa.gov for the most recent information.

[ANS thanks NASA Education Express Message -- March 21, 2013

Argentine CubeBug-1 satellite will have amateur radio digipeater

CubeBug-1 is the first technology demonstration mission for a new CubeSat platform design (mechanics, hardware and software) intended to be released as Open Source and Open Hardware for its use in Amateur projects, University projects and research labs.

The project is sponsored by the Argentinian Ministry of Science, Technology and Productive Innovation.

Payloads on this first mission include:
• an ARM based on-board computer
• a nano-reaction wheel with its driver circuit

• a low resolution camera
all based on COTS components

CubeBug-1 is a 2U CubeSat and the team are planning to use half duplex communications on 437.445 MHz with 9k6 GMSK data. Telemetry information is at http://1.cubebug.org/coms/telemetry

After the technology demonstration part of the mission is over, the satellite will enter a mode that will include services to the Amateur radio community, including a Digipeater, science data downloads from the payload (including images if possible).

CubeBug-1 is expected to launch on a Long March CZ-2D rocket from the Jiuquan Space Center on April 28, 2013. Other satellites on the same launch include NEE-01 Pegasus and TURKSAT-3USAT.

Watch a CubeBug-1 video at http://vimeo.com/56055215

CubeBug-1 website http://1.cubebug.org/

[ANS thanks AMSAT-UK for the above information]

/EX

In addition to regular membership, AMSAT offers membership in the President's Club. Members of the President's Club, as sustaining donors to AMSAT Project Funds, will be eligible to receive additional benefits. Application forms are available from the AMSAT Office.

Primary and secondary school students are eligible for membership at one-half the standard yearly rate. Post-secondary school students enrolled in at least half time status shall be eligible for the student rate for a maximum of 6 post-secondary years in this status. Contact Martha at the AMSAT Office for additional student membership information.

73,
This week's ANS Editor,
EMike McCardel, KC8YLD
kc8yld at amsat dot org

Via the ANS mailing list courtesy of AMSAT-NA
http://amsat.org/mailman/listinfo/ans

49. WSR-084 AMSAT Weekly Satellite Report

Newsgroup: rec.radio.amateur.space
Date: 2013-03-25 19:37:58 UTC
From: JoAnne Maenpaa <k9jkm@comcast.net>
Message-ID: <003c01ce298f$d5f99990$81ecccb0$@net>
Source record: 26
Cross-posted to: rec.radio.amateur.space,rec.radio.info

```
This report is organized into four (4) parts.
Part 1 (S1) - operational analog amateur satellites
Part 2 (S2) - operational digital amateur satellites
Part 3 (S3) - non - operational satellites
Part 4 (S4) - deborbited/returned satellites

SB SAT @ AMSAT W8ISS $WSR-084.S1
WSR 084 Part 1 03/25/2013

AMSAT NEWS SERVICE BULLETIN 084.S1
FROM AMSAT HQ SILVER SPRING, MD, March 25, 2013
TO ALL RADIO AMATEURS
BID: $WSR-084.S1

PW-Sat
Catalog Number: 38083
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: On Orbit

Uplink: 435.020 MHz FM
Downlink: 145.900 MHz DSB

Beacon:

Callsign:

URL:

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=132
[02112013]
=====
DO-64 Delfi-C3
Catalog number: 32789
Launch Date: April 28, 2008 0354z
Launch site: Satish Dhawan Space Centre, India

Status: Operational
Current Mode: Science Mode - Beacon ONLY

Telemetry: 145.870 MHz

Downlink: 145.880 to 145.920 MHz
Uplink: 435.530 to 435.570 MHz
```

Delfi-C3 web page: http://www.delfic3.nl/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=68
[02112013]
=====
VO-52 HAMSAT
Catalog number: 28650
Launch Date: May 05, 2005 0444z
Launch site: Satish Dhawan Space Centre, India

Status: Operational
Current Mode: U/v - Dutch Transponder

Frequencies:
Indian Transponder:
Uplink: 435.220 to 435.280 MHz LSB/CW
Downlink: 145.930 to 145.870 MHz USB/CW

Dutch Transponder:
Uplink: 435.225 to 435.275 MHz LSB/CW
Downlink: 145.925 to 145.875 MHz USB/CW

Indian Beacon: 145.9360 MHZ CW
Dutch Beacon: 145.860 MHz 12WPM with CW message

Mode and Antenna Polarization:
V: LHCP
U: RHCP

Official Webpage: http://www.amsatindia.org/hamsat.htm

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=30

To know what transponder is switched on please listen for the beacon
that is active. Each transponder has a different beacon.
[02112013]
=====
SO-50 SAUDISAT-1C
Catalog number: 27607
Launch date: December 20, 2002 1700z
Launch site: Baikonur, Kazakhstan

Status: Operational

Current Mode: V/u

Uplink: 145.850 MHz FM - 67.0 Hz PL tone
Downlink: 436.795 MHz

Mode and Antenna Polarization:
V: Linear
U: Linear

Official Webpage: http://saudisat.kacst.edu.sa/index.shtml
(not up and running currently)

To switch the transmitter on, you need to send a CTCSS tone of 74.4
Hz. The order of operation is thus: (allow for Doppler as necessary):
1) Transmit on 145.850 MHz with a tone of 74.4 Hz to arm the 10 minute
timer on board the spacecraft.
2) Now transmit on 145.850 MHz (FM Voice) using 67.0 Hz to PT the re-
peater on and off within the 10 Minute window.
3) Sending the 74.4 tone again within the 10 minute window will reset
the 10 minute timer.
[02112013]
=====
FO-29 JAS-2
Catalog number: 24278
Launch Date: August 17, 1996

Status: Operational
Current Mode: V/u (Mode JA)

Voice/CW (Mode JA)
Uplink: 145.90 to 146.00 MHz CW/LSB
Downlink: 435.80 to 435.90 MHz CW/USB
Beacon: 435.795 MHz

Digital Mode JD
Uplinks: 145.850 MHz FM
145.870 MHz FM
145.910 MHz FM
Downlink: 435.910 MHz 1200-baud BPSK or 9600-baud FSK
Callsign: 8J1JCS
Digitalker: 435.910 MHz

Mode and Antenna Polarization:
V: RHCP
U: RHCP

For current operational schedule for FO-29:
http://www.ne.jp/asahi/m-arai/gkz/satinfo/fo29e.htm

JARL English webpage:
http://www.jarl.or.jp/English/5_Fuji/ejasmenu.htm

AMSAT-NA Webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID
=5&retURL=/satellites/status.php

Mineo Wakita, JE9PEL, has created a simple decoder program for FO29's
CW telemetry downlink: http://www.ne.jp/asahi/hamradio/je9pel/
fo29cwts.htm
[02112013]
=====
AO-7 AMSAT OSCAR 7
Catalog number: 07530

Launch Date: November 15, 1974
Launch site: Vandenberg AFB, California, USA

Status: Operational

Current Mode: Alternating between Mode A and B every 24 hours

Uplink: 145.850 to 145.950 MHz CW/USB Mode A
432.125 to 432.175 MHz CW/LSB Mode B
Downlink: 29.400 to 29.500 MHz CW/USB Mode A (1W PEP)
145.975 to 145.925 MHz CW/USB Mode B (8W PEP)
145.975 to 145.925 MHz CW/USB Mode C (2W PEP)
Beacons: 29.502 MHz CW
145.972 MHz CW
435.100 MHz CW
2304.100 MHz CW

Official Webpage:
http://www.amsat.org/amsat-new/satellites/sat_summary/ao7.php
[02112013]
=====
INTERNATIONAL SPACE STATION (ISS) - ARISS
Catalog number: 25544
Launch date: November 20, 1998 0640z (ZARYA module)
Launch sites: Baikonur, Kazakhstan
Kourou, French Guiana
Uchinoura Space Center, Japan
Kennedy Space Center, Titusville, Florida, USA

Status: Operational

Current Active Modes: FM Repeater - OFF
Voice - V/v
BBS - V/v
2m APRS - V/v
2m Digi - V/v
70cm APRS - ?
70cm Digi - ?
SSTV - V/v

Expedition 35 Crew (March 2013 - September 2013):
Commander: Chris Hadfield KC5RNJ/VA3OOG
Flight Engineer: Tom Marshburn KE5HOC
Flight Engineer: Roman Romanenko
Flight Engineer:
Flight Engineer:
Flight Engineer:

Available Modes and Frequencies:
Digital/APRS:
Worldwide 2m packet uplink: 145.825 MHz FM 1k2
Worldwide 2m packet downlink: 145.825 Mhz FM 1k2
Worldwide 70cm packet uplink: 437.550 Mhz FM 1k2

Worldwide 70cm packet downlink: 437.550 Mhz FM 1k2

Voice:
Region 1 voice uplink: 145.200 MHz FM
Region 2/3 voice uplink: 144.490 MHz FM
Worldwide downlink: 145.800 MHz FM

Crossband Repeater:
Repeater Uplinks: 1269.650 MHz FM
437.800 MHz FM
145.990 MHz FM - 67.0 PL (Kenwood)
Repeater Downlink: 145.800 MHz FM
437.800 MHz FM (Kenwood)

SSTV Robot 36:
Downlink: 145.800 MHz FM

Mode and Antenna Polarization:
V: Linear
U: Linear

Callsigns:
Belgian: OR4ISS
German: DP0ISS
Russian: RS0ISS
RZ3DZR
United States: NA1SS
2m Packet Mailbox: RS0ISS-11
2m Digipeater alias: ARISS
70cm Packet Mailbox: RS0ISS-1
70cm Digipeater callsign: RS0ISS
70cm Digipeater alias: ARISS

Official ARISS Webpage: http://www.rac.ca/ariss
ISS Fan Club Webpage: http://www.issfanclub.com
APRS tracking page: http://www.ariss.net/

ISS Daily Crew Schedule: http://spaceflight.nasa.gov/station/timelines
Remember that the crew operates on UTC time. Also, all of the time
line is NOT translated from Russian and posted.
[03182013]
NNNN
/EX

SB SAT @ AMSAT W8ISS $WSR-084.S2
WSR 084 Part 2 03/25/2013

AMSAT NEWS SERVICE BULLETIN 084.S2
FROM AMSAT HQ SILVER SPRING, MD, March 25, 2013
TO ALL RADIO AMATEURS
BID: $WSR-084.S2

STRaND-1
Catalog Number:
Launch Date: February 25, 2013 12:31z
Launch Site: Satish Dhawan Space Centre, India

Status: Operational

Uplink:
Downlink:437.568MHz 9k6 FSK

Beacon: None(?)

Callsign:

URL: http://www.sstl.co.uk/Missions/STRaND-1--Launched-2013
[03042013]
=====
Fitsat-1
Catalog number: 38853
Launch Date: October 04, 2012
Launch site: Kibo Japanese Experiment Module, International Space
Station

Status: Operational

Uplink:
Downlink(s): 437.445MHz 1k2 AFSK
5840.00 MHz 115k2 data
LED CW (200w pulses)

Beacon(s): 437.250 MHz CW

Callsign: NIWAKA

URL: http://carpcomm.com/satellite/fitsat1
[10292012]
=====
TechEdSat
Catalog number: 38854
Launch date: October 04, 2012
Launch site: Kibo Japanese Experiment Module, International Space
Station

Uplink(s):
Downlink(s): 437.465 1k2 AFSK

Beacon(s):

Callsign:

URL:http://www.techedsat.com/
[10152012]
=====
We Wish
Catalog number: 38856
Launch date: October 04,2012

Launch Site: Kibo Japanese Experiment Module, International Space
Station

Uplink(s):
Downlink(s): 437.505MHz 1k2 AFSK
437.505MHz SSTV

Beacon(s): 437.505MHz CW

Callsign: JQ1ZIJ

URL:
[10152012]
=====
F-1
Catalog number: 38855
Launch Date: October 04, 2012
Launch Site: Kibo Japanese Experiment Module, International Space
Station

Uplink(s):
Downlink(s): 145.980MHz 1k2 AFSK
437.485MHz FM moduled CW

Baecon(s):

Callsign: XV1VN

URL: http://fspace.edu.vn/
[10152012]
=====
Aeneas
Catalog Number: 38760
Launch Date: September 13, 2012 2139z
Launch Site: Wallops Island, Virginia, USA

Status: On Orbit

Uplink: WiFi 2425MHz
Downlink:
WiFi: 2425MHz
Spread Spectrum: Somewhere in the 70cm band

Beacon: 437.600MHz 1k2 ax25 every 10 seconds

Callsign:

URL:
[10012012]
=====
CSSWE (Colorado Student Space Weather Experiment)
Catalog Number: 38761
Launch Date: September 12, 2012 2139z
Launch Site: Wallops Island, Virginia, USA

Status: On Orbit

Uplink:
Downlink: 437.345MHz 9k6 with ax.25

Beacon:

Callsign:

URL:
[10012012]
=====
CP5 (Polysat)
Catalog Number: 38763
Launch Date: September 12, 2012 2139z
Launch Site: Wallops Island, Virginia, USA

Status: On Orbit

Uplink:
Downlink: 437.405MHz AFSK on LSB ax.25 over NRZI at 1k2 baud,
every 2
minutes, begins 3.5 hours after first turn-on

Beacon:

Callsign:

URL:
[10012012]
=====
CXBN (Cosmic X-Ray Background Nanosatellite)
Catalog Number: 38762
Launch Date: September 12, 2012 2139z
Launch Site: Wallops Island, Virginia, USA

Status: On Orbit

Uplink:
Downlink: 437.525MHz GFSK ax.25

Beacon:

Callsign:

URL:
[10012012]
=====
Proiteres
Catalog Number: 38756
Launch Date: September 09, 2012 2139z
Launch Site: Satish Dhawan Space Centre, India

Status: On Orbit

Uplink:
Downlink: 437.485MHz FM/AFSK

Beacon:

Callsign: JL3YZK

URL:
[10012012]
=====
RS-40 MiR (Yubileiny-2)
Catalog Number: 38735
Launch Date: July 28, 2012
Launch Site: Plesetsk Missile and Space Complex, Russia

Status: On Orbit

Uplink:
Downlink(s): 435.265 MHz
435.365 MHz

Beacon:

Callsign:

URL:
[08272012]
=====
HORYU-II
Catalog number: 38340
Launch Date: May 17, 2012 1639z

Status: On Orbit

Uplink: 145.??? MHz
Downlink: 437.375 MHz CW/AX25/FSK

Beacon: 437.375 MHz CW

Callsign: JG6YBW

URL:

IARU Coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=216
[10012012]
=====
XaTcobeo
Catalog Number: 38082
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: Operational

Uplink:
Downlink: 437.365 MHz FFSK with AX.25

Beacon:

Callsign:

URL:

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=135
[100162012]
=====
UniCubeSat
Catalog Number: 38085(?)
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: Operational

Uplink:
Downlink: 437.305 MHz 9k6 bps GMSK

Beacon:

Callsign:

URL:
http://www.gaussteam.com/index.php?option=com_content&view=article&id=
96:unicu
besat&catid=36:unicubesat&Itemid=183

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=133
[10012012]
=====
Robusta
Catalog Number: 38083(?)
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: On Orbit

Uplink:
Downlink: 437.325 MHz 1k2 FM telemetry (data every 3 min, 20 sec.
burst)

Beacon:

Callsign:

URL:

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=122
[10012012]
=====
MO-72 MaSat-1
Catalog Number: 38081

Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: Operational

Uplink:
Downlink: 437.345 MHz GFSK 625/1250 bps
437.345 MHz CW

Beacon:

Callsign:

URL:

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=126
[10012012]
=====
Goliat
Catalog Number: 38084(?)
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: Operational

Uplink:
Downlink: 437.485 MHz 1k2 AFSK

Beacon:

Callsign:

URL:

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=98
[10012012]
=====
E-St@r
Catalog Number: 38079
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: On Orbit

Uplink:
Downlink: 437.445 MHz 1k2 bps AFSK

Beacon:

Callsign:

URL:

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=130
[10012012]
=====
ALMASat-1
Catalog Number: 38078
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: On Orbit

Uplink:
Downlink: 437.465 MHz 1k2 bps FSK
2407.850 MHz

Beacon:

Callsign:

URL:

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=39
[10012012]
=====
RS-39 Chibis-M
Catalog Number: 38051
Launch Date: October 30, 2011 10:11:00 UTC
Launch site: Tyuratam (Baikonur Cosmodrome), Kazakhstan

Status: Operational

Uplink:
Downlink:

Beacon: 435.315 MHz CW
435.215 MHz CW

Callsign:

URL:

IARU coordination status page:
[07302012]
=====
JUGNU
Catalog Number: 37839
Launch Date: October 12, 2011 05:30:00 UTC
Launch site: Satish Dhawan Space Centre, India

Status: On Orbit

Uplink: 145.??? MHz 1k2 (mode?)
Downlink: 437.505 MHz 9k6 (mode?)

Beacon: 437.275 MHz 15 wpm (?) CW

Callsign:

URL: http://www.iitk.ac.in/me/jugnu/index.htm

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=160
[07092012]
=====
SRMSAT
Catalog Number: 37841
Launch Date: October 12, 2011 05:30:00 UTC
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Uplink: 145.900 MHz 1k AX.25 (speed?)
Downlink: 437.500 MHz 2k4 AX.25

Beacon: 437.425 MHz 12 wpm CW

Callsign:

URL: http://srmsat.in/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=181
[01282013]
=====
HRBE (E1P Explorer 1 [Prime] CubeSat (E1P-U2))
Catalog Number: 37855
Launch Date: October 28, 2011
Launch site: Vandenberg Air Force Base, California, USA

Status: On Orbit

Uplink: 437.305 MHz (???)
Downlink: 437.505 MHz AX.25 (SSB?)

Beacon:

Callsign:

URL: http://ssel.montana.edu/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=116
[01122012]
=====
M-Cubed
Catalog Number: 37855
Launch Date: October 28, 2011
Launch site: Vandenberg Air Force Base, California, USA

Status: On Orbit

Uplink:
Downlink: 437.485 MHz AX.25

Beacon:

Callsign:

URL: http://umcubed.org/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=215
[01122012]
=====
RAX-2
Catalog Number: 37853
Launch Date: October 28, 2011
Launch site: Vandenberg Air Force Base, California, USA

Status: Operational

Uplink:
Downlink: 437.345MHz 9k6 GMSK

Beacon:

Callsign:

URL: http://rax.engin.umich.edu//

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=221
[03232012]
=====
AO-71 AubieSat-1
Catalog Number: 37854
Launch Date: October 28, 2011
Launch site: Vandenberg Air Force Base, California, USA

Status: On Orbit

Uplink:
Downlink: 437.475 MHz 1k2 AX.25

Beacon: 437.475 MHz CW

Callsign: KI4NQO

URL: http://www.space.auburn.edu/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=148
[12262011]
=====
O/OREOS
Catalog Number: 37224
Launch Date: November 20, 2010

Launch site: Kodiak Launch Complex, Alaska, USA

Status: On Orbit

Uplink:
Downlink: 437.035 MHZ AX.25

Beacon:

Callsign:

URL: http://www.ooreos.org/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=146
[02092011]
=====
Rax-1 Radio Aurora Explorer
Catalog Number: 37223
Launch Date: November 20, 2010
Launch site: Kodiak Launch Complex, Alaska, USA

Status: On Orbit

Uplink:
Downlink: 437.505 MHz 9k6 GMSK

Beacon:

Callsign: RAX-1

URL: http://rax.engin.umich.edu/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=165
[02092011]
=====
FO-69 Fastrac-1 Sara Lily
Catalog Number: 37227
Launch Date: November 20, 2010
Launch site: Kodiak Launch Complex, Alaska, USA

Status: Operational

Uplink 1: 145.980 MHz 1k2 baud
Uplink 2: 145.825 MHz 1k2 baud
Downlink: 437.345 MHz 1k2 and 9k6 baud

Beacon: 437.435 MHz 1k2 AX.25

Callsign: Fast1

URL: http://fastrac.ae.utexas.edu/index.php

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=83

[07052011]
=====
FO-70 Fastrac-2 Emma
Catalog Number: 37380
Launch Date: November 20, 2010
Launch site: Kodiak Launch Complex, Alaska, USA

Status: Operational

Uplink 1: 435.025 MHz 1k2 baud
Uplink 2: 437.435 MHz 9k6 baud
Downlink: 145.825 MHz 1k2 and 9k6 baud

Beacon: 145.825 MHz 1k2 AX.25

Callsign: Fast2

URL: http://fastrac.ae.utexas.edu/index.php

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=84
[12162011]
=====
StudSat
Catalog Number: 36796
Launch Date: July 12, 2010 0352z
Launch site: Satish Dhawan Space Centre, India

Status: On Orbit

Uplink: 437.505MHz, 9600bps FSK
Downlink: 437.505MHz, 9600bps FSK
Beacon : 437.505MHz, 20bps ASK

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=164
[02092011]
=====
TIsat-1
Catalog Number: 36799
Launch Date: July 12, 2010 0352z
Launch site: Satish Dhawan Space Centre, India

Status: On orbit

Callsign: HB9DE

Uplink: 145.980MHz FM, AFSK
Downlink: 437.305MHz FM, AFSK
Beacon: 437.305MHz CW

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=118
[02092011]

=====
SwissCube
Catalog Number: 35932
Launch Date: September 23, 2009 0621z
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Callsign: HB9EG

Beacon(100mw): 437.5050MHz CW
Beacon(1w): 437.5050MHz FSK 1k2bps

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=109
[02092011]
=====
UWE-2
Catalog Number: 35934
Launch Date: September 23, 2009 0621z
Launch site: Satish Dhawan Space Centre, India

Status: In Orbit

Beacon(500mw): 437.3850 MHz AFSK 1k2bps
437.3850 MHz FSK 9k6bps

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=110
[02092011]
=====
ITUpsAT1
Catalog Number: 35935
Launch Date: September 23, 2009 0621z
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Beacon(100mw): 437.325MHz CW
Beacon(1w): 437.325MHz 19k2bps

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=113
[02092011]
=====
BEESAT
Catalog Number: 35933
Launch Date: September 23, 2009 0621z
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Callsign: DP0BEE

Beacon(100mw): 436.000MHz CW
Beacon(500mw): 436.000MHz GMSK 4k8bps
Beacon(500mw): 436.000MHz GMSK 9k6bp
[02092011]
=====
SOHLA-1 (ASTRO TECH.)
Catalog Number: 33496
Launch Date: January 23, 2009 0354z
Launch site: Tanegashima Space Center, Japan

Status: Operational

Proposed Frequencies and Modes:
Downlink: 437.505 MHz AFSK/CW
Beacon: 437.505 MHz AFSK/CW

Callsign:

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=101
[02092011]
=====
KAGAYAKI (Solan Co.)
Catalog Number: 33495
Launch Date: January 23, 2009 0354z
Launch site: Tanegashima Space Center, Japan

Status: In Orbit

Downlink: 437.375 MHZ FSK9k6/CW
Beacon: 437.375 MHz FSK9k6/CW

IARU coordination status page:

AMSAT-NA webpage:

[02092011]
=====
STARS (Kagawa Univ.) (Twin Satellites)
Catalog Number: 33498
Launch Date: January 23, 2009 0354z
Launch site: Tanegashima Space Center, Japan

Status: Operational ?

Downlinks: 437.485 MHz FM/CW
437.465 MHz FM/CW
Beacons: 437.305 MHz FM/CW
437.275 MHz FM/CW

Callsigns: JR5YBN
JR5YBO

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=99

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=121&retURL
=/satellites/status.php
[02092011]
=====
KKS-1 (Tokyo MCIT)
Catalog Number: 33499
Launch Date: January 23, 2009 0354z
Launch site: Tanegashima Space Center, Japan

Status: Operational

Downlink: 437.455 MHz AFSK/CW
Beacon: 437.385 MHz AFSK/CW

Callsign: JQ1YYY

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=107

AMSAT-NA webapge:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=120&retURL
=/satellites/status.php
[20092011]
=====
PRISM (Tokyo Univ.)
Catalog Number: 33493
Launch Date: January 23, 2009 0354z
Launch site: Tanegashima Space Center, Japan

Status: Operational

Uplink: 145.xxx MHz AFSK 1k2
Downlink: 437.425 MHz AFSK 1k2
Beacon: 437.250 MHz CW

Callsign: JQ1YCX

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=97

Read terms and conditions of operations at the PRISM web page to find
out how
to properly operate on the satellite and to get the uplink frequency.
It
has
been asked that the uplink frequency not be given out untik you have
read and
understood the terms of usage.

URL:
http://www.space.t.u-tokyo.ac.jp/prism/en/HAMservice.html
[10282012]
=====
RS-30 Radio Sputnik 30 (Yubileiny)

Catalog Number: 32953
Launch Date: May 23, 2008 1520z
Launch site: Plesetsk Missile and Space Complex, Russia

Status: Operational

Curent Modes: Telemetry
Audio
Images

Downlinks: 435.315 MHz
435.215 MHz

AMSAT-NA website:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=115&ret
URL=/satellites/status.php

Official website:
http://www.npopm.com/?cid=leoca&caid=43
[02092011]
=====
CanX-2
Catalog number: 32790
Launch Date: April 28, 2008 0354z
Launch site: Satish Dhawan Space Centre, India

Status: Operational in range of ground station only

Downlink: 437.478 MHz GFSK

For the latest project status update please visit the Can X-2 web
page: http://www.utias-sfl.net/nanosatellites/CanX2/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=46
[02092011]
=====
AAUSAT-II
Catalog number: 32788
Launch Date: April 28, 2008 0354z
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Downlink: 437.425 MHz 1k2 baud packet

For the latest project status update please visit the AAUSAT-II web
page:
http://www.aausatii.aau.dk/homepage/index.php?language=en&page=home

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=60
[02092011]
=====

CO-65 CUTE-1.7+APD II
Catalog number: 32785
Launch Date: April 28, 2008 0354z
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Downlink: 437.475 MHz 9k6 Packet
Uplink: 1267.600 Mhz

Telemetry Beacon:
Downlink: 437.2750 MHz CW

For the latest project status update please visit the Cute-1.7+APD II
web page: http://lss.mes.titech.ac.jp/ssp/cute1.7/index_e.html

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=78

Command Station blog website:
http://lss.mes.titech.ac.jp/ssp/cute1.7/blog/

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=112&retURL
=/satellites/status.php
[03232012]
=====
Compass-1
Catalog number: 32787
Launch Date: April 28, 2008 0354z
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Current Mode: dependant on last received command

Uplink: 145.980 MHz FM
Downlink: 437.275 Mhz CW
437.405 MHz Packet

For the latest project status update please visit the Compass 1 web
page: http://www.raumfahrt.fh-aachen.de/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=52

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=114&retURL
=/satellites/status.php
[06162011]
=====
CO-66 Seeds II
Catalog number: 32791
Launch Date: April 28, 2008 0354z

Launch site: Satish Dhawan Space Centre, India

Status: Operational

Downlink: 437.485 MHz

Callsign: JQ1YGU

For the latest project status update please visit the Seeds 2 web
page: http://cubesat.aero.cst.nihon-u.ac.jp/english/seeds_2_e.html

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=36

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=113&retURL
=/satellites/status.php
[073092011]
=====
CAPE-1
Catalog Number: 31130
Launch Date: April 17,2007 0702z
Launch site: Baikonur, Kazakhstan

Status: Intermittent

Current Mode: /u

TLM Downlink: 435.245 MHz 9600 bs FSK AX.25
CW Beacon: 435.245 MHz CW

Callsign: K5USL

TLM and CW interchange every 30 seconds.

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=94&retURL=
/satellites/status.php

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=72
[02092011]
=====
CP3
Catalog Number: 31129
Launch Date: April 17,2007 0702z
Launch site: Baikonur, Kazakhstan

Status: Operational

Current Mode: /u

Downlink: 436.845 MHz 1200 bps AFSK AX.25

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=74

[02092011]
=====
CO-58 CubeSat XI-V
Catalog number: 28895
Launch Date: October 27, 2005 0652z
Launch site: Plesetsk Missile and Space Complex, Russia

Status: Operational - CW Beacon only

Current Mode: /u

Telemetry Downlink: 437.4250 MHz AFSK 1200bps using AFK protocol
Beacon: 437.2750 MHz CW

Callsign: JQ1YGW

Official Webpage: http://www.space.t.u-tokyo.ac.jp/cubesat/mission/V/

Pictures received by Mineo Wakita - JE9PEL:
http://www.ne.jp/asahi/hamradio/je9pel/xivpicte.htm

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=37
[02092011]
=====
CO-57 CubeSat XI-IV
Catalog number: 27848
Launch date: June 30, 2003 1415z
Launch site: Plesetsk Missile and Space Complex, Russia

Status: ?????

Current Mode: /u

Beacon: 436.8475 MHz CW
Telemetry : 437.4900 MHz AFSK 1200 BPS

Callsign: JQ1YGW

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=96&retURL
=/satellites/status.php

Official Webpage: http://www.space.t.u-tokyo.ac.jp/cubesat/mission/V/
[02092011]
=====
QuakeSat
Catalog Number: 27845
Launch Date: June 30, 2003 1415z
Launch site: Plesetsk Missile and Space Complex, Russia

Status: Telemetry only

Current Mode: 9600 baud data packet

Mode U packet
Downlink: 436.675 MHz 9k6 BPS

Quakesat webpage:
http://www.quakefinder.com/services/quakesat-ssite/
[02252011]
=====
CO-55 Cute-1.7+APD II
Catalog Number: 27844
Launch date: June 30, 2003 1415z
Launch site: Plesetsk Missile and Space Complex, Russia

Status: Operational

Current Mode: CW downlink worldwide
AX25 Packet with uplink command over Japan only

Mode U Telemetry
Downlink: 437.4000 MHz AFSK 1200 BPS

Mode U TLM Beacon
Downlink: 436.8375 MHz CW

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=69&retURL
=/satellites/status.php

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=78
[02092011]
=====
NO-44 PCSAT
Catalog number: 26931
Launch Date: September 30, 2001 0240z
Launch site: Kodiak Launch Complex, Alaska, USA

Status: Operational

Current Mode: V/v

General Usage Uplink/Downlink: 145.827 MHz 1200 Baud
Special Usage Downlink: 144.390 Mhz 1200 Baud

PCSAT APRS page: http://pcsat.aprs.org

aprstlm Telemetry Decoder program:
http://www.xciv.org/~iain/aprstlm/v1.2/
[10292012]
=====
RS-22 RADIO SPORT 22 (MOZHAYETS 4)
Catalog number: 27939
Launch Date: September 27, 2003 0612z
Launch site: Plesetsk Missile and Space Complex, Russia

Status: Operational - 70cm cw only

Current Mode: /u

CW Beacon - 435.352 MHz
145.818 MHz

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=76&retURL
=/satellites/status.php
[02092011]
=====
LO-19 LUSAT
Catalog number: 20442
Launch date: January 22, 1990
Launch site: Kourou, French Guiana

Status: CW Beacon only

Uplinks: 145.840 MHz 1200-baud Manchester FSK
145.860 MHz 1200-baud Manchester FSK
145.880 MHz 1200-baud Manchester FSK
145.900 MHz 1200-baud Manchester FSK

CW downlink: 437.125 MHz

Digital downlink: 437.150 MHz SSB (RC-BPSK 1200-baud PSK)

Broadcast Callsign: LUSAT-11
BBS: LUSAT-12

General information and telemetry samples can be found at:
www.telecable.es/personales/ea1bcu
[02092011]
=====
UO-11 OSCAR-11
Catalog number: 14781
Launch Date: March 1, 1984
Launch site: Vandenburg AFB, California, USA

Status: Operational ?

Current Mode: /v

Telemetry Downlink: 145.825 MHz FM 1200 AFSK
UHFBeacon: 435.025 MHz
Mode-S Beacon: 2401.500 MHz

Mode and Antenna Polarization:
V: RHCP
S: LHCP

Webpage: http://www.users.zetnet.co.uk/clivew/
MPEG3 files: http://www.ne.jp/asahi/hamradio/je9pel/uo11tlme.htm
[07052011]
=====
INTERNATIONAL SPACE STATION (ISS) - ARISS

Catalog number: 25544
Launch date: November 20, 1998 0640z (ZARYA module)
Launch sites: Baikonur, Kazakhstan
Kourou, French Guiana
Uchinoura Space Center, Japan
Kennedy Space Center, Titusville, Florida, USA

Status: Operational

Current Active Modes: FM Repeater - OFF
Voice - V/v
BBS - V/v
2m APRS - V/v
2m Digi - V/v
70cm APRS - ?
70cm Digi - ?
SSTV - V/v

Expedition 35 Crew (March 2013 - September 2013):
Commander: Chris Hadfield KC5RNJ/VA3OOG
Flight Engineer: Tom Marshburn KE5HOC
Flight Engineer: Roman Romanenko
Flight Engineer:
Flight Engineer:
Flight Engineer:

Available Modes and Frequencies:
Digital/APRS:
Worldwide 2m packet uplink: 145.825 MHz FM 1k2
Worldwide 2m packet downlink: 145.825 Mhz FM 1k2
Worldwide 70cm packet uplink: 437.550 Mhz FM 1k2
Worldwide 70cm packet downlink: 437.550 Mhz FM 1k2

Voice:
Region 1 voice uplink: 145.200 MHz FM
Region 2/3 voice uplink: 144.490 MHz FM
Worldwide downlink: 145.800 MHz FM

Crossband Repeater:
Repeater Uplinks: 1269.650 MHz FM
437.800 MHz FM
145.990 MHz FM - 67.0 PL (Kenwood)
Repeater Downlink: 145.800 MHz FM
437.800 MHz FM (Kenwood)

SSTV Robot 36:
Downlink: 145.800 MHz FM

Mode and Antenna Polarization:
V: Linear
U: Linear

Callsigns:
Belgian: OR4ISS
German: DP0ISS
Russian: RS0ISS
RZ3DZR
United States: NA1SS
2m Packet Mailbox: RS0ISS-11
2m Digipeater alias: ARISS
70cm Packet Mailbox: RS0ISS-1
70cm Digipeater callsign: RS0ISS
70cm Digipeater alias: ARISS

Official ARISS Webpage: http://www.rac.ca/ariss
ISS Fan Club Webpage: http://www.issfanclub.com
APRS tracking page: http://www.ariss.net/

ISS Daily Crew Schedule: http://spaceflight.nasa.gov/station/timelines
Remember that the crew operates on UTC time. Also, all of the time
line is NOT translated from Russian and posted.
[03182013]
NNNN
/EX

SB SAT @ AMSAT W8ISS $WSR-084.S3
WSR 084 Part 3 03/25/2013

AMSAT NEWS SERVICE BULLETIN 084.S3
FROM AMSAT HQ SILVER SPRING, MD, March 25, 2013
TO ALL RADIO AMATEURS
BID: $WSR-084.S3

THE FOLLOWING ARE IN ORBIT BUT ARE NON-OPERATIONAL AT THIS TIME:

NANOSAIL-D
Catalog Number: 37361
Ejection Date: January 17, 2011

Status: Non - Operational

Downlink: 437.270 MHz AX.25

URL: http://nanosaild.engr.scu.edu/dashboard.htm

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=115
[07302012]
=====
HO-68 HOPE-1 (CAS-1) (XW-1)
Catalog Number: 36122
Launch Date: December 15, 2009 0231z
Launch site: Taiyuan Space Center, PRC

Status: Telemetry only

Callsign:
Broadcast: BJ1SA-11
BBS: BJ1SA-12

Uplinks: 145.8250 MHz FM, PL 67.0 Hz.
145.9250 - 145.9750 MHz SSB/CW
145.8250 MHz AFSK 1200 BPS
Downlinks: 435.6750 MHz FM
435.7650 - 435.7150 MHz SSB/CW
435.6750 MHz AFSK 1200 BPS

Beacon: 435.7900 MHz CW

Mode and Antenna Polarization:
V: LHCP 2.0dBi max
U: RHCP 3.0dBi max

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=108

For more information about XW-1 (CAS-1):
http://
[04302012]
=====
SO-67 SumbandilaSat
Catalog Number: 35870
Launch Date: September 17, 2009 1555z
Launch site: Baikonur, Kazakhstan

Status: Non - Operational

Callsign: ZS0SUM

Uplink: 145.875MHz FM tone 233.6 Hz
Downlink: 435.345MHz FM

Mode and Antenna Polarization:
V: Linear
U: Linear

For more information about SO-67:
http://www.amsatsa.org.za/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=88
[01272012]
=====
CP4
Catalog Number: 31132
Launch Date: April 17, 2007

Status: Non-Operational

Current Mode: /u

TLM Downlink: 437.325 MHz 1200 bps FSK AX.25
CW Beacon: 437.325 MHz CW

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=79
[09062010]
=====
LIBERTAD-1
Catalog Number: 31128
Launch Date: April 17, 2007

Status: Non-Operational

Current Mode: V/u APRS Packet ax25

Callsign: 5K3L

Uplink: 145.825 MHz 1200 AFSK ax25 APRS
Downlink: 437.399 MHz 1200 AFSK ax25 APRS

Telemetry Beacon: 437.4050 MHz 1200 AFSK ax25

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=76
[09062010]
=====
PO-63 PEHUENSAT-1
Catalog Number: 29712
Launch Date: January 10, 2007

Status: Non-Operational

Current Mode: V/v

Uplink/Downlink: 145.825 Mhz FM
Voice Recorder: 145.825 Mhz FM

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=51
[09062010]
=====
NCUBE-2
Catalog number: 28897
Launch Date: October 27, 2005

Status: Still attached to XO-53 (SSETI)?

Proposed Callsign: TBA
Proposed Transmit Frequency: 437.305
2407.250

Official Website: http://www.ncube.no

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=24
[09062010]

=====
XO-53 SSETI
Catalog number: 28894
Launch Date: October 27, 2005

Status: Non-operational

Voice Uplink: 437.250 MHz FM 67Hz CTCSS
Voice Downlink: 2401.835 MHz FM
Packet Up/Downlink: 437.250 MHz 9k6 packet
Packet Downlink 2401.835 MHz 38k4 packet

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=54
[09062010]
=====
UWE-1
Catalog Number: 28892
Launch Date: October 27, 2005

Status: Non-Operational

Mode U Telemetry
Downlink: 437.5050 MHz 9600 AFSK

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=53
[09062010]
=====
AO-51 ECHO
Catalog number: 28375
Launch date: June 29, 2004 0745z
Launch site: Baikonur, Kazakhstan

Status: Non - Operational

Current Mode(s):
Voice repeater: V/u
Uplink: 145.880 MHz FM
Downlink: 435.150 MHz FM

Telemetry: Recovery efforts
Downlink: 435.150MHz 9k6

Analog voice downlink: 435.300 MHz FM
435.150 MHz FM
2401.200 Mhz FM
Analog voice uplink: 145.860 MHZ FM
145.880 MHz USB
145.880 MHz FM
145.920 MHz FM
145.920 MHz FM - 67 Hz PL tone burst
1268.705 MHz FM

Digital Downlinks: 435.150 MHz FM 38k4 PBP, 1 watt output
435.150 MHz FM 9k6 Pacsat Broadcast
Protocol
2401.200 MHz FM 38k4 bps, AX.25
Digital Uplink: 145.860 MHz FM 9k6 Pacsat Broadcast
Protocol
1268.703 mhz FM 9k6 Pacsat Broadcast
Protocol
Beacon: 435.150 MHz

Mode and Antenna Polarization:
T: Linear
V: Linear
U: TX A (usually digital)LHCP
TX B (usually analog) RHCP
L: Linear
S: Linear

Broadcast: PECHO-11
BBS: PECHO-12

Official Webpage: http://www.amsat.org/amsat-new/echo/CTNews.php

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=19
[12062011]
=====
CANX-1
Catalog Number: 27847
Launch Date: June 30, 2003

Status: Non-Operational

Downlink: 437.8800 MHz AFSK 1k2bps
[06052009]
=====
DTUSAT
Catalog Number: 27842
Launch Date: June 30, 2003

Status: Non-Operational

Current Mode: 2k4 AFSK Packet last reported

Downlink: 437.475MHz

Officail webpage: http://dtusat1.dtusat.dtu.dk/

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=101&retURL
=satellites/all_oscars.php
[02212009]
=====
AO-49 AATiS OSCAR-49 (SAFIR-M)

Catalog number: 27605
Launch Date: December 20, 2002

Status: Non-operational.

Uplink: 435.275 MHz 1200-baud AFSK
Downlink: 145.825 MHz 9600-baud FSK
(optional voice message)

Broadcast callsign: DP0AIS

Official webpage: http://amend.gmxhome.de
[01222007]
=====
MO-46 TIUNGSAT-1
Catalog number: 26548
Launch date: September 26, 2000

Status: Telemetry only

Uplinks: 145.850 MHz
145.925 MHz 9600-baud FSK
Downlink: 437.325 MHz

Broadcast callsign: MYSAT3-11
BBS: MYSAT3-12

TiungSat-1 is Malaysia's first micro-satellite and in addition to
commercial land and weather imaging payloads offers FM and FSK
Amateur Radio communication.

TiungSat-1, named after the mynah bird of Malaysia, was developed as
a collaborative effort between the Malaysian government and Surrey
Satellite Technology Ltd.
[03302009]
=====
NO-45 SAPPHIRE
Catalog number: 26932
Launch Date: September 30, 2001

Status: Non-Operational

Downlink: 437.095 MHz 1200 baud AX-25 AFSK
Uplink: 145.945 MHz UI Digipeater
Digi Callsign: KE6QMD

Everyone is welcome to use the digipeating/APRS features of Sapphire,
as per the user service agreement located at the following URL:
http://web.usna.navy.mil/~bruninga/pcsat/contract.txt
[03132005]
=====
SO-42 SAUDISAT-1B
Catalog number: 26549
Launch date: September 26, 2000

Status: Non-Operational

Downlink: 437.075 MHz

Broadcast Callsign: SASAT2-11
BBS: SASAT2-12

Further information is available at:
http://www.amsat.org/amsat/sats/n7hpr/so42.html
[01222007]
=====
SO-41 SAUDISAT-1A
Catalog number: 26545
Launch Date: September 26, 2000

Status: Non-Operational

Uplink: 145.850 MHz
Downlink: 436.775 MHz

Broadcast Callsign: SASAT1-11
BBS: SASAT1-12

Further information is available at:
http://www.amsat.org/amsat/sats/n7hpr/so41.html
[01222007]
=====
AO-40 AMSAT OSCAR 40
Catalog number: 26609
Launch Date: November 16, 2000

Status: Non-Operational

Uplinks

V-band: 145.840 - 145.990 MHz CW/LSB
U-band: 435.550 - 435.800 MHz CW/LSB
L1-band: 1269.250 - 1269.500 MHz CW/LSB
L2-band: 1268.325 - 1268.575 MHz CW/LSB

Downlinks

S2-band: 2401.225 - 2401.475 MHz CW/USB
K-band: 24048.010 - 24048.060 MHz CW/USB
Beacon: 2401.323 MHz
24048.035 MHz

P3-D Telemetry Beacons (IHU)

BEACON General Beacon(GB) Middle Beacon(MB) Engineering Beacon(EB)
2 m none 145.898 MHz none
70cm 435.438 MHz 435.588 MHz 435.838 MHz
13cm(1) 2400.188 MHz 2400.338 MHz 2400.588 MHz
13cm(2) 2401.173 MHz 2401.323 MHz 2401.573 MHz
3cm 10450.975 MHz 10451.125 MHz 10451.375 MHz

1.5cm 24047.885 MHz 24048.035 MHz 24048.285 MHz
[07162007]
=====
OO-38 OPAL
Catalog Number: 26063
Launch Date: January 27, 2000

Status: Non-Operational

Mode U TLM Beacon
Downlink: 437.1000 MHz 9600 FSK
[08132007]
=====
UO-36 UoSAT-12
Catalog number: 25693
Launch date: April 21, 1999

Status: Unknown

Uplink: 145.960 MHz (9600-baud FSK)
Downlinks: 437.025 MHz
437.400 MHz

Broadcast Callsign: UO121-11
BBS: UO121-12

The VK5HI viewer shareware for UO-36 is available on the AMSAT-NA web
site at the following URL:
ftp://ftp.amsat.org/amsat/software/win32/display/ccddsp97-119.zip
[01222007]
=====
SO-35 SUNSAT
Catalog Number: 25636
Launch date:February 23, 1999

Status: Non-Operational

Downlink: Mode B Repeater: 436.291 MHz
Mode J Digipeater: 436.250 MHz

Uplinks: Mode B Repeater: 145.825 MHz
Mode J Digipeater: 145.825 MHz
145.900 MHz

For more information of SUNSAT vist the satellite web site:
http://esl.ee.sun.ac.za/projects/sunsat/
[01222007]
=====
PO-34 PANSAT
Catalog number: 25520
Launch date: October 30, 1998

Status: Telemetry downloads only

Uplink/downlink: 436.500 MHz

Official Webpage: http://www.sp.nps.navy.mil/pansat/
[05092004]
=====
SO-33 SEDSAT-1
Catalog number: 25509
Launch date: October 24, 1998

Status: Semi-operational

Downlink: 437.910 MHz FM (9600-baud FSK)

The satellite is not currently available for uplink transmissions and
the image and transponder recovery efforts have been unsuccessful.

For more information on SedSat-1 visit the satellite web site:
http://seds.uah.edu/projects/sedsat/sedsat.htm
[09042006]
=====
GO-32 Gurwin TechSat-1B
Catalog number: 25397
Launch Date: July 10, 1998

Status: Non-Operational

Current Modes:
Telemetry : /u

Downlink: 435.225 MHz FM (9600-baud FSK)
435.325 Mhz - Not Available - temperature problems
Uplinks: 145.850 FM
145.890 FM
145.930 FM
1269.700 FM
1269.800 FM
1269.900 FM

Broadcast Callsign: 4XTECH-11
BBS Callsign: 4XTECH-12

More information of GO-32 can be found at:
http://asri.technion.ac.il/techsat/

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=14&retURL
=/satellites/status.php
[07172010]
=====
TO-31 TMSAT-1
Catalog number: 25396
Launch Date: July 10, 1998

Status: Non-operational

Uplink: 145.925 MHz 9600 baud FSK
Downlink: 436.925 MHz 9600 baud FSK

Broadcast callsign: TMSAT1-11
BBS: TMSAT1-12
[05012006]
=====
MO-30 UNAMSAT-2
Catalog Number: 24305
Launch Date: September 5, 1996

Status: Non-operational

Downlink: 435.1380 MHz AFSK 1200 BPS
Downlink: 435.2060 MHz AFSK 1200 BPS
Uplink: 145.8150 MHz AFSK 1200 BPS
Uplink: 145.8350 MHz AFSK 1200 BPS
Uplink: 145.8550 MHz AFSK 1200 BPS
Uplink: 145.8750 MHz AFSK 1200 BPS
[06042009]
=====
PO-28 POSAT-1
Catalog number: 22829
Launch Date: September 25, 1993

Status: Non-operational

Downlink: 429.950
Uplink: Not until handover back to Amatuer usage

Broadcast callsign: POSAT1-11
BBS callsign: POSAT1-12

AMSAT Webpage: http://www.amsat.org/amsat/sats/n7hpr/po28.html
POSAT-1 webpage:
http://www.ee.surrey.ac.uk/SSC/CSER/UOSAT/missions/posat1.html
[01012009]
=====
AO-27 AMRAD
Catalog number: 22825
Launch Date: September 26, 1993 0140z
Launch site: Kourou, French Guiana

Status: Recovery efforts in progress

Current Mode: V/u

Uplink: 145.850 MHz FM
Downlink: 436.797 MHz FM

Mode and Antenna Polarization:
V: Linear
U: Linear

Official Webpage: http://www.ao27.org
[12032012]
=====
IO-26 ITAMSAT
Catalog number: 22826
Launch Date: September 26, 1993 0140z

Status: PSK carrier only

Current Mode:

Uplinks: 145.875 MHz FM 1200-baud
145.900 MHz FM 1200-baud
145.925 MHz FM 1200-baud
145.950 MHz FM 1200-baud

Downlink: 435.808 MHz PSK

Broadcast Callsign: ITMSAT-11
BBS: ITMSAT-12

Official webpage: http://www.itamsat.org
AMSAT Webpage: http://www.amsat.org/amsat/sats/n7hpr/io26.html
[01212007]
=====
KO-25 KITSAT
Catalog number: 22828
Launch date: September 26, 1993

Status: Non-operational

Uplink: 145.980 MHz FM 9600-baud FSK
Downlink: 436.500 MHz FM

Broadcast Callsign: HL02-11
BBS: HL02-12
[05092004]
=====
AO-24 ARSENE
Catalog Number: 22654
Launch Date: May 13, 1993

Status: Non-operational

Uplink: 435.0625 MHz FM 1k2bps AFSK
435.1125 MHz FM 1k2bps AFSK
435.1375 MHz FM 1k2bps AFSK
Downlink: 145.9750 MHz FM 1k2bps AFSK
2446.5025 MHz FM 1k2bps AFSK

Beacon: 2446.4700 MHz CW

Broadcast callsign:
BBS:
[12162009]

=====
KO-23 KITSAT
Catalog number: 22077
Launch date: August 10, 1992

Status: Non-operational

Uplink: 145.900 MHz FM (9600-baud FSK)
Downlink: 435.170 MHz FM

Broadcast Callsign: HLO1-11
BBS: HLO1-12
[01222007]
=====
UO-22 UOSAT
Catalog number: 21575
Launch date: July 17, 1991

Status: Non-Operational

Uplink: 145.900 FM 9600-baud FSK
Downlink: 435.120 MHz FM

Broadcast Callsign: UOSAT5-11
BBS: UOSAT5-12
[01222007]
=====
AO-21 AMSAT-OSCAR 21
Catalog Number: 21087
Launch Date: January 29, 1991

Status: Non-Operational

Uplink: 435.041 MHz FM DSP
Downlink: 145.983 MHz FM DSP
[01222007]
=====
FO-20 JAS-1b
Catalog number: 20480
Launch Date: February 07, 1990

Status: Non-Operational

Beacons: 435.795 MHz CW
435.910 MHz AX25

Voice Transponder:
Uplink: 145.900 to 146.000 MHz CW/LSB
Downlink: 435.800 to 435.900 MHz CW/USB

Digital Transponder:
Uplinks: 145.850 MHz
145.870 MHz
145.890 MHz

145.910 MHz
Downlink: 435.910 MHz

More FO-20 info can be found at:
http://www.amsat.org/amsat/sats/n7hpr/fo20.html
[01152007]
=====
WO-18 WEBERSAT
Catalog Number: 20441
Launch Date: January 22, 1990

Status: Non-Operational

Downlink: 437.104 MHz SSB 1200 Baud PSK AX.25
[05012006]
=====
DO-17 Dove
Catalog Number: 20440
Launch Date: January 22, 1990

Status: Non-operational.

Downlink: 145.825 MHz FM 1200 Baud AFSK
Beacon: 2401.220 MHz
[05012006]
=====
AO-16 PACSAT
Catalog number: 20439
Launch Date: January 22, 1990

Status: non-operational

Current Mode: V/u

Uplink: 145.900 MHz FM 1200-baud Manchester FSK (reserved)
145.920 MHz FM VOICE
145.940 MHz FM 1200-baud Manchester FSK (reserved)
145.960 MHz FM 1200-baud Manchester FSK (reserved)

Downlink: 437.026 MHz USB VOICE
(1200-baud PSK - MBL Telemetry Only)

Mode-S Beacon: 2401.1428 MHz [NO FUTURE OPERATIONS PLANNED]

Mode and Antenna Polarization:
U: RC 437.050 MHz RHCP
PSK 437.026 MHz LHCP
V: Linear

Broadcast Callsign: PACSAT-11
BBS: PACSAT-12

AO-16 AMSAT Webpage: http://www.amsat.org/amsat/sats/n7hpr/ao16.html
[07242009]

=====
UO-15 UoSAT-4
Catalog Number: 20438
Launch Date: January 22, 1990

Status: Non-operational

Uplink: ?
Downlink: 435.1250MHz (?)
435.1200MHz (?)
[06042009]
=====
UO-14 UoSAT-3
Catalog number: 20437
Launch date: January 22, 1990

Status: Non-operational

Uplink: 145.975 MHz FM
Downlink: 435.070 MHz FM
[05092004]
=====
FO-12 Fuji-OSCAR 12
Catalog Number: 16909
Launch Date: August 12, 1986

Status: Non-Operational

Mode V/U (J) Linear Transponder (Inverting):
Uplink: 145.9000 - 146.0000 MHz SSB/CW
Downlink 435.8000 - 435.9000 MHz SSB/CW

Mode V/U (J) Packet:
Uplink: 145.8500 MHz MFSK 1200 BPS
Uplink: 145.8700 MHz MFSK 1200 BPS
Uplink: 145.8900 MHz MFSK 1200 BPS
Uplink: 145.9100 MHz MFSK 1200 BPS

Downlink 435.9100 MHz PSK 1200 BPS

Telemetry Beacon: 435.7950 MHz SSB/CW
[01152007]
=====
AO-10 OSCAR 10
Catalog number: 14129
Launch Date: June 16, 1983

Status: Non-operational

Uplink: 435.030 to 435.180 MHz CW/LSB
Downlink: 145.975 to 145.825 MHz CW/USB

Beacon: 145.810 MHz (unmodulated carrier)

W4SM has more information about the satellite at the following URL:
http://www.cstone.net/~w4sm/AO-10.html
[05092004]
=====
AO-8 AMSAT-OSCAR 8
Catalog Number: 10703
Launch Date: March 3, 1978

Status: Non-Operational

Mode V/U (J) Linear Transponder (Non-Inverting): Non-Operational
Uplink: 145.9000 - 146.0000 MHz SSB/CW
Downlink 435.1990 - 435.2000 MHz SSB/CW

Mode V/U (J) TLM Beacon: Non-Operational
Downlink 435.0950 MHz CW

Mode V/A (A) Linear Transponder (Non-Inverting): Non-Operational
Uplink: 145.8500 - 145.9000 MHz SSB/CW
Downlink 29.4000 - 29.5000 MHz SSB/CW

Mode V/A (A) TLM Beacon: Non-Operational
Downlink 29.4020 MHz CW
[01152007]
=====
AO-6 AMSAT-OSCAR 6
Catalog Number: 06236
Launch Date: October 15, 1972

Status: Non-Operational

Uplink: 145.9000 - 146.0000 MHz SSB/CW
Downlink: 29.4500 - 29.5500 MHz SSB/CW
Beacons: 29.450 MHz
435.100 MHz
[01312008]
=====
AO-5 Australis-OSCAR 5
Catalog Number: 04321
Launch Date: January 23, 1970

Status: Non-Operational

Telemetry Beacons: 144.0500 MHz CW
29.4500 MHz CW
[01152007]
=====
OSCAR III
Catalog Number: 01293
Launch Date: March 09, 1965

Status: Non-Operational

Uplink: 145.9750 - 146.0250 MHz SSB/CW
Downlink: 144.3250 - 144.3750 MHz SSB/CW

[01012007]
=====
RS-15 RADIO SPORT RS-15
Catalog number: 23439
Launch Date: December 26, 1994

Status: Non-operational

Uplink: 145.858 to 145.898 MHz CW/USB
Downlink: 29.354 to 29.394 MHz CW/USB

Beacon 1: 29.352 MHz (intermittent)
Beacon 2: 29.398 MHz

SSB meeting frequency: 29.380 MHz (unofficial)
[06202004]
=====
RS-13 RADIO SPORT RS-13
Catalog number: 21089
Launch date: February 5, 1991

Status: Non-operational

Uplink: 21.260 to 21.300 MHz CW/USB
Downlink: 145.860 to 145.900 MHz CW/USB

Beacon: 145.860 MHz

Robot: 145.908 MHz
[05232004]
=====
RS-12 RADIO SPORT RS-12
Catalog number: 21089
Launch date: February 5, 1991

Status: Non-operational

Uplink: 21.210 to 21.250 MHz CW/USB
Downlink: 29.410 to 29.450 MHz CW/USB

Beacon: 29.408 MHz

Robot: 29.454 MHz
[05232004]
NNNN
/EX

ANS is released worldwide via the AMSAT ANS e-mail reflector and a
live
radiocast on the AMSAT-NA 20-meter net held each Sunday on 14.282 MHz.
Pre-net operations start at 18:00 UTC, with current ANS bulletins
trans-
mitted to the eastern U.S. at 19:00 UTC and to the western U.S. at
19:30

UTC.

Information on AMSAT-NA is available at the following URL:
http://www.amsat.org

Mailing address:
AMSAT-NA
850 Sligo Avenue, Suite 600
Silver Spring, Maryland 20910-4703

Voice: 301-589-6062
888-322-6728
FAX: 301-608-3410

Currently, AMSAT-NA supports the following (free) mailing lists:

* AMSAT News Service (ANS)
* General satellite discussion (AMSAT-BB)
* Orbit data (KEPS)
* Manned space missions (SAREX)
* District of Columbia area (AMSAT-DC)
* New England area (AMSAT-NE)
* AMSAT Educational Liaison mailing list (AMSAT-EDU)
* AMSAT K-12 Educational Liaison mailing list (AMSAT-K12)

A daily digest version is available for each list.

To subscribe, or for more list information, visit the following URL:
http://www.amsat.org/mailman/listinfo/ans

In addition to regular membership, AMSAT-NA offers membership in the President's Club. Members of the President's Club, as sustaining donors to AMSAT Project Funds, will be eligible to receive additional benefits. Application forms are available from the AMSAT-NA Office.

This week's Weekly Satellite Report Editor is James French, W8ISS.

ANS is always dedicated to past ANS editor 'BJ' Arts, WT0N, and to the memory of longtime AMSAT supporters Werner Haas, DJ5KQ, Dennis Kitchen, G0FCL and John Branegan GM4IHJ.

Please send any amateur satellite news or reports to: ans-editor{at}
amsat.org
NNNN
/EX

50. 30 Years Ago: Japanese Amateur Radio Satellite JAS-1 Announced

Newsgroup: rec.radio.amateur.space
Date: 2013-03-27 16:20:15 UTC
From: "Paul W. Schleck" <pschleck@oasis.novia.net>
Message-ID: <5152ff9c$0$71764$540ea2cf@novia.net>
Source record: 27
Cross-posted to: rec.radio.amateur.moderated,rec.radio.amateur.digital.misc,rec.radio.amateur.space

-----BEGIN PGP SIGNED MESSAGE-----
Hash: SHA1

This is from a web-site that is replaying Usenet, including
net.ham-radio, from 30 years ago (currently early 1983). The site is:

http://www.olduse.net

If you prefer to use your own newsreader, the site also supports an NNTP
connection at:

nntp.olduse.net:119

>From: karn <utzoo!decvax!harpo!eagle!karn>
>Subject: JAS-1 announced
>Newsgroups: net.ham-radio, net.space
>Date: Fri Mar 25 16:24:07 1983

Last weekend, JAMSAT and JARL (the Japanese branch of AMSAT and the
Japanese Amateur Radio League) formally announced a project to build an
amateur radio satellite for launch in 1986 aboard a new Japanese launch
vehicle, the H-1 (similar to the American Delta).

The satellite will physically resemble Oscar-8, and carry two
communications payloads. One will be a Mode J 2m-to-70cm linear
transponder like that on Oscar-8, and the other will be a digital
store-and-forward "mailbox".

The digital half of JAS-1 will be in addition to the similar PACSAT
project being planned in the US for one of three launch possibilities:
aboard a Space Services launcher, a Delta with Landsat D', or aboard the
Landsat 4 Recovery shuttle mission from Vandenburg.

Discussions have been underway between AMSAT and JAMSAT for some time to
establish common modulation, protocols and user interfaces wherever
possible for PACSAT and the digital portion of JAS-1 in order to minimize
user inconvenience.

Launch of JAS-1 is planned for early 1986 into a 1500 km altitude, 50
degree inclination orbit. Note that this orbit will NOT be
sun-synchronous, unlike that planned for PACSAT.

Phil Karn, KA9Q
Asst. VP Engineering, AMSAT

-----BEGIN PGP SIGNATURE-----
Version: GnuPG v2.0.19 (FreeBSD)

```
iEYEARECAAYFAlFS/2sACgkQ6Pj0az779o5jXACgtU3BcWlpcfR0/GVffAEmy0Zh
PUAAoM2i7GrroIhLGDsELePL59BZG2Je
=R/oT
-----END PGP SIGNATURE-----
```

51. Re: 30 Years Ago: Japanese Amateur Radio Satellite JAS-1 Announced

Newsgroup: rec.radio.amateur.space
Date: 2013-03-27 19:13:19 UTC
From: Rob <nomail@example.com>
Message-ID: <slrnkl69ke.g1l.nomail@xs8.xs4all.nl>
Source record: 28
Cross-posted to: rec.radio.amateur.moderated,rec.radio.amateur.digital.misc,rec.radio.amateur.space

Paul W Schleck <pschleck@oasis.novia.net> wrote:
> The satellite will physically resemble Oscar-8, and carry two
> communications payloads. One will be a Mode J 2m-to-70cm linear
> transponder like that on Oscar-8, and the other will be a digital
> store-and-forward "mailbox".

I still have my JAS-1 modem (combined with an early TNC2 clone)
and a printout of a session with the mailbox...

52. Ham Radio Now for Saturday 30 March 2013

Newsgroup: rec.radio.amateur.space
Date: 2013-03-30 08:03:55 UTC
From: rec-radio-info-request@panix.com
Message-ID: <e89a8fb1fca259050704d91fd35b@google.com>
Source record: 29
Cross-posted to: rec.radio.amateur.misc,rec.radio.amateur.space,rec.radio.info

Ham Radio Now

//
HamRadioNow: West Palm Beach ARC's Science Museum Station

Posted: 29 Mar 2013 05:13 AM PDT
http://hamradionow.tv

This Hamvention® Club of the Year launched a ham station at the South Florida Science Museum. We talk to club president Tom AJ4XM at the Orlando HamCation

53. ANS-090 AMSAT News Service Weekly Bulletins

Newsgroup: rec.radio.amateur.space
Date: 2013-03-31 01:26:35 UTC
From: JoAnne Maenpaa <k9jkm@comcast.net>
Message-ID: <004401ce2dae$7b42ae10$71c80a30$@net>
Source record: 30
Cross-posted to: rec.radio.amateur.space,rec.radio.info

```
AMSAT NEWS SERVICE
ANS-090

The AMSAT News Service bulletins are a free, weekly news and infor-
mation service of AMSAT North America, The Radio Amateur Satellite
Corporation. ANS publishes news related to Amateur Radio in Space
including reports on the activities of a worldwide group of Amateur
Radio operators who share an active interest in designing, building,
launching and communicating through analog and digital Amateur Radio
satellites.

The news feed on http://www.amsat.org publishes news of Amateur
Radio in Space as soon as our volunteers can post it.

Please send any amateur satellite news or reports to:
ans-editor at amsat.org.

In this edition:

* Schedule of AMSAT Activities at Dayton Hamvention
* AMSAT/TAPR Banquet Speaker: Bruce Perens, K6BP
* AMSAT Store Now Selling Tickets for AMSAT/TAPR Friday Night Banquet
* "Dayton Only" Special Deals at the AMSAT Store
* Google Earth Satellite Tracker Software Rollout for Demo and Testing
* AMSAT-UK Colloquium 2013 Announced for July 19-21
* South Africa AMSAT Space Symposium to Feature Interesting Topics
* VO-52 HAMSAT Transponder User Feedback Requested
* Cubesat Launches Planned for April
* ARISS School Contacts This Week
* Satellite Shorts From All Over

SB SAT @ AMSAT $ANS-090.01
ANS-090 AMSAT News Service Weekly Bulletins

AMSAT News Service Bulletin 090.01
>From AMSAT HQ SILVER SPRING, MD.
March 31, 2013
To All RADIO AMATEURS
BID: $ANS-090.01

**************************************************************
* Volunteers are needed to help at the AMSAT booth at Dayton. *
* Steve Belter N9IP, is looking for volunteers to help man the *
* AMSAT booth during the 2013 Hamvention. If you are willing *
* to help at the Hamvention, please send an e-mail by April 30 *
* to Steve Belter, n9ip@amsat.org. *
```

* *
* Monitor the 'AMSAT at Dayton Hamvention 2013' link on the new *
* AMSAT Web Site http://www.amsat.org for the latest AMSAT at *
* Dayton news and developments *
****

Schedule of AMSAT Activities at Dayton Hamvention

AMSAT Hamvention activities and displays are planned to take place
at the new booth location (444-446 and 433-435) in the Ball Arena,
and outside in the Satellite Demonstration Area just outside the
Ball Arena entrance.

2013 theme for AMSAT at Dayton is "AMSAT - A View to the Future."

Here are the daily AMSAT activities for on-site and off-site events
at the 2013 Hamvention!

Thursday 16 May 2013

+ 11:00 AM - 5:00 PM
AMSAT Booth Setup at Ball Arena (contact Steve Belter, N9IP,
n9ip at amsat.org if you can help during this time).

+ 6:30 PM - 10:00 PM
The third Annual AMSAT "Dinner at Tickets" party will be held at
Tickets Pub & Eatery in Fairborn, OH. Check out the 'AMSAT at Day-
ton Hamvention 2013' link to the page 'AMSAT Dayton Social Events'
on the new Web Site: http://www.amsat.org.

Friday 17 May 2013

+ 9:00 AM - 6:00 PM at the AMSAT Booth
AMSAT Booth open for membership renewals, books, new items and
information.

+ 6:30 PM - 10:30 PM AMSAT/TAPR Banquet at Dayton 2013
AMSAT/TAPR Banquet on Friday night, May 18 is one of the main AMSAT
activities during the 2013 Hamvention at Dayton. See the bulletin
below for details!

Saturday 18 May 2013

+ 9:00 AM - 5:00 PM at the AMSAT Booth
AMSAT Booth open for membership renewals, books, new items and
information.

+ 11:15 AM - 1:30 PM The AMSAT Forum
Get the latest information about what is going on with AMSAT and
its projects. The AMSAT Forum will be held in Forum Room 5. See
the bulletin below for details!

Sunday 19 May 2013

+ 9:00 AM - 1:00PM at the AMSAT Booth
AMSAT Booth open for membership renewals, books, new items and information.

+ 1:00PM - 3:00PM at the AMSAT Booth
Take down and storage of the AMSAT Booth. (contact Steve Belter, N9IP, n9ip at amsat.org if you can help during this time).

Demos Daily on Friday, Saturday, and Sunday for All Available Passes
---
AMSAT is encouraging everyone attending the 2013 Dayton Hamvention to come by the Satellite Demonstration Area just outside of the Ball Area entrance and make a contact using the amateur satellites. There will be AMSAT volunteers to explain how to make the contacts and during actual satellite passes will complete as many actual contacts as possible. Satellite pass times will be posted in the satellite demonstration area and at the AMSAT booth.

[ANS thanks AMSAT's 2013 Dayton Committee for the above information]

AMSAT/TAPR Banquet Speaker: Bruce Perens, K6BP

The seventh annual AMSAT/TAPR Banquet will be held on Friday evening, May 17. This dinner will be one of the highlights of the AMSAT activities during the 2013 Hamvention at Dayton.

This year's speaker will be Bruce Perens, K6BP, with a humorous history of technology evangelism: "The Evangelist's Dilemma: Driving New Ideas With Nothing But Words." As you can imagine, when you're promoting new ideas, there are things that inevitably go wrong. Bruce will pull examples from his history with Open Source, No-Code, Software Freedom, Codec2, and Open Hardware, and he'll introduce a few of the new battle grounds.

[ANS thanks AMSAT's 2013 Dayton Committee for the above information]

AMSAT Store Now Selling Tickets for AMSAT/TAPR Friday Night Banquet

Tickets for the dinner are $30 each, and must be purchased from the AMSAT Store at http://store.amsat.org/catalog/ by Tuesday, May 14.

The dinner will be held at:

The Kohler Presidential Banquet Center
4548 Presidential Way
Kettering, OH 45429

Doors open at 1830 for a cash bar with buffet dinner served at 1915.

Seating is limited to the number of meals we reserve with the Kohler caterers, based on the number of tickets sold by the deadline. Tickets will not be sold at Dayton, but tickets purchased online may be collected at the AMSAT booth (444-446 and 433-435).

Join us for a fun evening with good food, great company, and an outstanding speaker.

[ANS thanks AMSAT's 2013 Dayton Committee for the above information]

"Dayton Only" Special Deals at the AMSAT Store

As usual, during the Hamvention AMSAT will have a number of special items and packages available at the booth. These will range from new design shirts and hats, to tracking hardware and software, to Elk antennas.

Many of the shirts and trinkets are only available at Dayton. When they are gone, they are gone! Be sure to stop by the booth early while we have a full range of sizes.

Here are some of the bargains announced for Dayton Hamvention 2013:

+ SATPC32 - $40 (normally $45 for members)
+ AMSAT TOTE BAG - $5.00 (Free for new and renewing members and for those who buy a LVB Tracker Box.)
+ AMSAT LICENSE PLATE HOLDER - $5.00 (Free for new and renewing members)

These items are only available at Dayton:
+ LVB TRACKER BOX - $200
+ ELK ANTENNA - $125

The full shopping list, including publications, software, hardware, apparel, and sustaining memberships are posted on the AMSAT On-Line Store at: http://ww2.amsat.org/?page_id)6

Please do not contact the AMSAT office requesting Dayton-only specials. Our regular offerings remain available at the AMSAT Store: http://store.amsat.org/catalog/

[ANS thanks Alan Biddle, WA4SCA for the above information]

Google Earth Satellite Tracker Software Rollout for Demo and Testing

Joseph Armbruster, KJ4JIO has rolled out his software project for testing by interested amateur satellite operators. His Python-based Google Earth Satellite Tracker adds satellite tracking to the Google Earth map features.

This is an on-going development project which, at present, requires you to have Python 2.7, and supporting environment installed on your

computer. Full details of the installation steps are documented on
Joe's Google Earth Satellite Tracker project page:
https://code.google.com/p/ge-satellite-tracker/

Example screen shots along with an ongoing blog of the project's
development is posted at:
http://libjoe.blogspot.com/2013/03/google-earth-satellite-tracker.html

[ANS thanks Joseph Armbruster, KJ4JIO for the above information]

AMSAT-UK Colloquium 2013 Announced for July 19-21

The AMSAT-UK International Space Colloquium 2013 will be held on
July 19-21, 2013 at the Holiday Inn, Guildford, GU2 7XZ, United
Kingdom. In conjunction with the event a Hands-on CubeSat Workshop
will take place at the nearby University of Surrey on Friday,
July 19. Colloquium program information, travel information and
hotel booking information is posted at:

http://amsat-uk.org/colloquium/colloquium-2013/

The Colloquium attracts an international audience from across Europe
as well as North America and the Middle East. Attendees range from
the builders of the CubeSats and Nanosats, those who communicate
through them and beginners who wish to find out more about this
fascinating branch of the hobby.

Call For Papers and Speakers

AMSAT-UK invites speakers, to cover topics about micro-satellites,
CubeSats, Nanosats, space and associated activities, for this event.

They are also invited to submit papers for subsequent publishing on
the AMSAT-UK web site. We normally prefer authors to present talks
themselves rather than having someone else give them in the authors'
absence. We also welcome 'unpresented' papers for the web site.

We appreciate that it is not always possible to give a firm indica-
tion of attendance at this stage but expressions of interest would
be appreciated.

Submissions should be sent *ONLY* to G4DPZ, via the following routes:
e-mail: dave at g4dpz dot me dot uk
Postal address at http://www.qrz.com/db/G4DPZ

AMSAT-UK also invite anyone with requests for Program Topics to sub-
mit them as soon as possible to G4DPZ.

[ANS thanks AMSAT-UK for the above information]

South Africa AMSAT Space Symposium to Feature Interesting Topics

The South Africa AMSAT Space Symposium will be held at the Innovation Hub in Pretoria on Saturday, May 18, 2013. Some of the topics on the agenda include:

+ A full report on the SA AMSAT KLETSkous cubesat
+ How DynaCube will, after launch, study the particle radiation in the South Atlantic
+ Building a 14 MHz receiver to measure signal properties of the ZACUBE 1
+ Innovative Solutions in Space by ISIS

The full program and registration forms will be available soon at: http://www.amsatsa.org.za/.

[ANS thanks SA AMSAT and SARL News 3/30/2013 for the above information]

VO-52 HAMSAT Transponder User Feedback Requested

Mani, VU2WMY, Secretary & Station-In-Charge of the Upagrah Amateur Radio Club VU2URC at India's ISRO Satellite Centre, has issued a request for user feedback from amateur satellite operators using the VO-52 HAMSAT transponder.

Mani wrote, "We are in need of the latest user feed backs and reports on the performance of the current transponder on-board VO-52 [Hamsat] for routine official documentation purposes.

"Hence, We request VO-52 users to kindly send in their latest reports and valuable feed backs, so as to enable us to complete the procedures at the earliest."

Reports should be sent via e-mail to Mani at: wmy@isac.gov.in
He also requests you to copy your report to tprangan@istrac.org

[ANS thanks Mani, VU2WMY for the above information]

Cubesat Launches Planned for April

April 19 BAIKONUR Soyuz-2-1b

A Soyuz-2-1b from the Baikonur launch facility, in Kazakhstan on April 19, 2013 will include three cubesat missions:

Satellite	Downlink	Mode
OSSI-1	145.980/437.525	CW/1200bps
SOMP	437.485	1200, 9600bps BPSK
BEESAT-2/3	435.950	4800bps GMSK
Bion-M1	Biological research satellites	
AIST	Measurement of the Earth's geomagnetic field	

Dove-2 Commercial technology demonstration mission

OSSI-1

145.980 MHz CW, 437.525 MHz 1k2

OSSI-1, the Open Source Satellite Initiative satellite is a cubesat developed by Hojun Song DS1SBO. In addition to the radio beacons OSSI-1 also carries a 44 watt LED optical beacon to flash Morse Code messages to observers on Earth.

The development of the satellite has been documented on the Open Source Satellite Initiative Blog http://opensat.cc/blog/ and the Wiki http://opensat.cc/wiki/
http://www.youtube.com/watch?v=OL0zSY6cg

SOMP

Downlink on 437.485 MHz including CW, 1k2 and 9k6 BPSK, AX25 FSK, and AO40 standard 400bit/s BPSK

The Student Oxygen Measurement Project (SOMP) is a cubesat developed by students of the Technische Universit=E4t Dresden, Germany, organized in the Students= Research Group for Spacecraft Engineering in Dresden (STARD). SOMP will be a standard sized single CubeSat with one payload side and five sides with two solar cells each.

http://phpweb.tu-dresden.de/stard/SOMP/?lang=
http://tinyurl.com/SOMP-AMSAT-UK-Posting

BEESAT-2/3 (Berlin Experimental and Educational Satellite)
435.950 MHz, 4k8 GMSK (both satellites)

BEESAT-2 is a cubesat-sized vehicle carries a technology experiment using gyros and sensors for precise orientation.

BEESat-3 is another cubesat-sized vehicle that will test high-speed data links (up to 1MB/s).

http://www.raumfahrttechnik.tu-berlin.de/beesat/

The above cubesat missions and the scientific/commercial missions are also documented on Mineo Wakita's (JE9PEL) web page at:
http://www.ne.jp/asahi/hamradio/je9pel/ossisomp.htm

April 20 KOUROU Vega Launch

Estonia=E4s first CubeSat ESTCube-1, amateur radio callsign ES5E/S, is planning to launch from Kourou in the Caribbean at 02:06:31 UT, April 20, 2013 on an ESA VEGA rocket.

Built by students at the University of Tartu ESTCube-1 the main mission of the satellite is to test electric solar wind sail technology, a novel space propulsion technology that could revolution-

alize transportation within the solar system. It will deploy a 10 meter conductive electrodynamic tether and the force interacting with the tether will be measured.

The IARU Amateur Satellite Frequency Coordination Panel have published these frequencies for ESTCube-1:

+ 437.250 MHz CW beacon, callsign ES5E/S
+ 437.505 MHz 9600 bps AX.25 telemetry, callsign ES5E-11

More information and a video has been posted at:
http://amsat-uk.org/?p774

April 25 on CZ-2D from China's Jiuquan Space Center

TAMSAT reports the TURKSAT-3USAT, the first communication nanosatellite mission of ITU, Istanbul Technical University, Istanbul, Turkey is expected to launch in the May 2013 timeframe aboard China's Chang Zheng-2D rocket. Also aboard this launch will be Ecuador's NEE 01 Pegaso 1U cubesat.

TURKSAT-3USAT is a three unit CubeSat developed to provide SSB/CW communications in a 680 km Low Earth Orbit. It will fly a V/U linear transponder developed by TAMSAT, the Turkish Amateur Satellite Technologies Organisation.

+ Uplink center frequency 145.965 MHz
(145.940-145.990 MHz bandwidth)
Receive sensitivity -120 dBm

+ Downlink center frequency 435.225 MHz
(435.200-435.250 MHz bandwidth)
Output power 30 dBm (1W)

+ CW beacon on 437.225 MHz

Additional information can be accessed on-line at:
http://www.tamsat.org.tr/tr/turksat-3usat-is-almost-ready/
http://www.uk.amsat.org/?p670

[ANS thanks AMSAT-UK and Mineo Wakita, JE9PEL for the above information]

ARISS School Contacts This Week

Katy, Texas

An International Space Station school contact was held with participants at Thornton Middle School, Katy, TX on March 25. The contact was direct between NA1SS and KF5NZD.

Thornton Middle School students, due to their economic backgrounds, have limited opportunities for enrichment activities beyond those

that can be implemented in the classroom. Many of its students and families believe that opportunities in high paying STEM careers are beyond the reach of Thornton students, and that, "other kids have all the luck." This ARISS contact helped dispel these perceptions and will demonstrate to the students and families that Thornton students are capable of complex problem solving, and that they are capable of learning "Rocket Science" material.

Quebec, Canada

An International Space Station school contact was held with participants at Des Cardinaux School, Sainte-Rose, Laval, Quebec, Canada on March 26. The contact was a telebridge between NA1SS and K6DUE.

This school is located in the Sainte-Rose, Laval. The school is a French primary school which includes preschool students in the second year of the third cycle. It has approximately 580 students. The students spoke with Col. Chris Hadfield, Canada's first commander of the ISS.

Planned Contacts Next Week

+ Stratford Academy, Macon, GA, telebridge via W6SRJ on April 3 at 12:47 UTC.

+ 820 Chris Hadfield Royal Canadian Air Cadet Squadron, Milton, Ontario, Canada, telebridge via LU8YY on April 6 at 20:25 UTC.

ARISS is requesting listener reports for these contacts. Due to issues with the Kenwood radio that are not fully understood at present, the Ericsson radio is going to be used for this contact. ARISS thanks everyone in advance for their assistance.

The total number of ARISS ISS to earth school events now is at 805.

[ANS thanks ARISS for the above information]

Satellite Shorts From All Over

+ Look for Paul, 2E1EUB operating portable/mobile on all satellites from Scotland as 2M1EUB/P starting on April 4 for 7 days. Paul has posted additional information on his callsign lookup page at: http://www.qrz.com/ for the callsign 2M1EUB.

+ Special Event in Mexico - FMRE, with the help of Grupo DXXE, will activate a unique prefix for the first time: 4 A 8 DMR (DMR ��a Mundial del Radioaficionado). This station will be active from April 18 to 21, 2013 on all bands from 6 meters to 160 in all modes including EME and amateur radio satellites from different Grid Locators throughout Mexico. (WIANEWS - March 31 2013)

+ Bob, W7LRD (grid CN87) reported a successful contact with Boris, UA0QJ (grid PP42) via FO-29 on March 26. The range between the two stations is 6268 km. Both stations were stretching the footprint with low elevations at both ends of the contact.

+ Watch a video of WD9EWK working FO-29 from the Scottsdale, Arizona Hamfest on Saturday, March 9. 2013. Patrick used two FT-817ND rigs, one for the uplink transmitter, the second to receive the downlink on a handheld ELK 2M/70cm antenna. The video is posted at: http://www.youtube.com/watch?feature&#65533;ayer_embedded&v&#65533;hR7Doby0E

+ The TAPR Forum at the Hamvention plans to have a presentation by Chris Testa, KD2BMH, on his handheld Software Defined Radio (SDR) transceiver. His low powered 144 and 440-MHz radio operates in a variety of digital modes, as well as AM, FM, and SSB. For a preview of the topic see: http://tinyurl.com/KD2BMH-SDR-Handheld The TAPR Forum will be on Friday from 9:15-11:00 AM in Room 1. (TAPR PSR #121 WINTER 2013)

+ James W. Cutler, KF6RFX, Assistant Professor, Department of Aerospace Engineering at the University of Michigan (developers of the successful RAX cubesat mission) invite amateur satellite operators to participate in the Ground Station Survey. The engineering team is collecting information on global ground station availability to improve satellite communication capabilities. Their goal is to survey existing and under utilized ground antennas to improve satellite communication opportunities. To participate go to: http://gs.engin.umich.edu/gs_survey/

+ NASA posted a video about the CubeSat Launch Initiative which provides new opportunities for Science, Technology, Engineering and Mathematics by helping people design, launch and collect data: http://www.youtube.com/watch?feature&#65533;ayer_embedded&v&#65533;8k0RRmOKk

+ The CQ Magazine Newsroom at http://cqnewsroom.blogspot.com/ has posted several news items of amateur radio in space:
o AMSAT Preparing for Two Launch Opportunities
o Smartphone-based Ham Satellite Now in Orbit
o Hams Take Part in ISS "Dead Zone" Experiment
o AMSAT Website Hacked, Taken Offline
o AMSAT Receives Matching Fund Challenge for Fox Contributions
o 6-Meter Beacon from Antarctica? (also plans for satellite ops)

+ In the April, 2013 QST "World Above 50MHz" column (page 94) Roger, VE1SKY says he uses his VHF and UHF gear on AO-7, FO-29, and VO-52 while waiting for the next band opening. Roger is quoted, "This is a good way to make use of your gear and a challenging activity in its own right." [Ed. note] - This could work the other way around: ... while you are waiting for the next satellite pass use your VHF and UHF station to check if the bands are open ... further use of your gear as well.

+ Enjoy shopping in the ham radio shops in Akihabara, Tokyo, Japan in this video by Marcin Kielce, SQ7BCE. Although the commentary is in Polish it none-the-less provides a good idea of the range of equipment available and the prices in Japan. To convert the prices shown to UK Pounds Sterling divide by 142 or to get the US dollar price divide by 94. Watch it on Southgate at: http://tinyurl.com/Southgate-Tokyo-Shopping.

[ANS thanks everyone for the above information]

/EX

In addition to regular membership, AMSAT offers membership in the President's Club. Members of the President's Club, as sustaining donors to AMSAT Project Funds, will be eligible to receive additional benefits. Application forms are available from the AMSAT Office.

Primary and secondary school students are eligible for membership at one-half the standard yearly rate. Post-secondary school students enrolled in at least half time status shall be eligible for the student rate for a maximum of 6 post-secondary years in this status. Contact Martha at the AMSAT Office for additional student membership information. And with that please keep in mind that the best number is 73. Why? 73 is the 21st prime number. Its mirror (37) is the 12th and its mirror (21) is the product of multiplying, 7 and 3. ... In binary, 73 is a palindrome, 1001001 which backwards is 1001001. In Morse Code it is also a palindrome --... ...--

73,
This week's ANS Editor,
JoAnne Maenpaa, K9JKM

54. Weekly Highlights of Solar and Geomagnetic Activity, 25 - 31 March 2013

Newsgroup: rec.radio.amateur.space
Date: 2013-04-01 15:30:10 UTC
From: SWPC.Webmaster@noaa.gov
Message-ID: <20130401153001.C1F3433C8C@panix2.panix.com>
Source record: 31
Cross-posted to: rec.radio.amateur.misc,rec.radio.amateur.dx,rec.radio.amateur.space,rec.radio.shortwave,rec.radio.info

```
:Product: Weekly Highlights and Forecasts
:Issued: 2013 Apr 01 0149 UTC
# Prepared by the US Dept. of Commerce, NOAA, Space Weather Prediction Center
# Product description and SWPC contact on the Web
# http://www.swpc.noaa.gov/weekly.html
#
# Weekly Highlights and Forecasts
#
Highlights of Solar and Geomagnetic Activity
25 - 31 March 2013

Solar activity was very low. Region 1710 (S21, L=201, class/area
Cao/070 on 29 Mar) produced the largest event of the period with a
B8 flare at 30/1024 UTC. Other activity included a B4 x-ray event
observed at 30/1322 UTC from Region 1708 (N11, L=190, class/area
Dao/090 on 29 Mar) with an associated Type II radio sweep (estimated
shock speed of 814 km/s). No Earth-directed CMEs were observed
during the period.

No proton events were observed at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit was at
high levels for the majority of the period with the exception of 27
and 29 March due to effects from coronal hole high speed stream (CH
HSS) activity.

Geomagnetic field activity was at quiet levels on 25-26 March. Quiet
to active conditions were observed on 27-28 March due to effects
from a favorably positioned CH HSS. Solar wind speed gradually
increased from initial values of approximately 400 km/s to
end-of-day values of approximately 500 km/s. The interplanetary
magnetic field (IMF) Bt values ranged from 1 nT to 11 nT while the
Bz component of the IMF ranged from +7 nT to -11 nT. A further
increase to unsettled to minor storm conditions was observed on
29-30 March due to effects from a second CH HSS. During that period,
solar wind speed remained fairly steady averaging about 550 km/s.
The IMF Bt values ranged from a high of 8 nT to a low of 1 nT while
the Bz component of the IMF ranged from +5 nT to - 7 nT. The field
returned to quiet levels midday on 30 March and remained quiet
through the end of the period.

Forecast of Solar and Geomagnetic Activity
01 April - 27 April 2013
```

Solar activity is expected to be very low to low throughout the period. There is a slight chance for M-class activity from 01 - 13 April while Region 1711 (S17, L=159, class/area Cki/420 on 31 Mar) is on the disk.

No proton events are expected at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit is expected to be at high levels through 04 April and again from 25 April through the end of the period due to CH HSS effects. The remainder of the period is expected to be at normal to moderate levels.

Geomagnetic field activity is expected to begin the period at quiet levels. Quiet to unsettled conditions are expected from 03-07 April due to weak CH HSS effects. A return to mostly quiet conditions is expected on 08-22 April. Quiet to unsettled conditions with a chance for active periods are possible on 23-26 April due to recurrent CH HSS effects. The remainder of the period is expected to be at quiet levels.

55. Radio Meteor Obs. Bull. March 2013

Newsgroup: rec.radio.amateur.space
Date: 2013-04-06 10:29:42 UTC
From: Chris Steyaert <observations@rmob.org>
Message-ID: <36uvl8p94q5eqfc01narbl50n2t4qv1tcp@4ax.com>
Source record: 32
Cross-posted to: rec.radio.amateur.space,sci.astro.amateur

Radio Meteor Observation Bulletin No. 236 of March 2013 (80 K) is available now as

http://www.rmob.org/rmobtext/rmob1303.txt

More information and the visual presentation of the hourly forward scatter counts can be found on

http://www.rmob.org

Chris

56. Weekly Highlights of Solar and Geomagnetic Activity, 01 - 07 April 2013

Newsgroup: rec.radio.amateur.space
Date: 2013-04-08 15:30:34 UTC
From: SWPC.Webmaster@noaa.gov
Message-ID: <20130408153001.A6EC933C8C@panix2.panix.com>
Source record: 33
Cross-posted to: rec.radio.amateur.misc,rec.radio.amateur.dx,rec.radio.amateur.space,rec.radio.shortwave,rec.radio.info

```
:Product: Weekly Highlights and Forecasts
:Issued: 2013 Apr 08 0354 UTC
# Prepared by the US Dept. of Commerce, NOAA, Space Weather Prediction Center
# Product description and SWPC contact on the Web
# http://www.swpc.noaa.gov/weekly.html
#
# Weekly Highlights and Forecasts
#
Highlights of Solar and Geomagnetic Activity
01 - 07 April 2013

Solar activity began the period at very low levels on 01-02 April.
By 03 April, solar activity increased to low levels and continued at
low levels through 04 April due to several low level C-class flares
from Regions 1708 (N11, L=190, class/area Dao/090 on 29 March), 1711
(S19, L=158, class/area Cko/580 on 04 April), and 1713 (N10, L=175,
class/area Dai/130 on 06 April). By 05 April, solar activity reached
moderate levels with an isolated M2 flare at 05/1748 UTC from Region
1719 (N08, L=076, class/area Dsi/150 on 07 April). Earlier on 05
April, a long duration C2 flare was observed at 05/0650 UTC, also
from Region 1719 as it began to rotate onto the east limb. An
associated coronal mass ejection (CME) was observed off the east
limb in SOHO/LASCO C2 imagery beginning at 05/0712 UTC, but was not
Earth-directed. By 06-07 April, solar activity returned to low
levels with the majority of the C-class flares from Regions 1718
(N20, L=109, class/area Dai/140 on 07 April) and 1719. No
Earth-directed CMEs were observed during the reporting period.

No proton events were observed at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit was at
high levels on 01-05 April and decreased to moderate levels by 06-07
April. The maximum weekly flux value of 5166 pfu was observed at
02/1735 UTC.

Geomagnetic field activity was at quiet levels with isolated active
periods at high latitudes mid-day on 01 and 07 April. Solar wind
speed began the period decreasing from approximately 480 km/s to a
low near 250 km/s by late on 05 April while the total field strength
slowly increased from 2 nT to 6 nT. By Early on 06 April, solar wind
speed started to increase to 340-370 km/s while total field strength
increased to 5-7 nT. Solar wind speed was relatively constant near
the 330-350 km/s range through the end of the reporting period. Phi
angle was mostly negative (towards) through approximately 07/1500
```

UTC when a change to a more positive (away) sector occurred.

Forecast of Solar and Geomagnetic Activity
08 April - 04 May 2013

Solar activity is expected to be at very low to low levels with a chance for M-class flaring from 08-19 April as Regions 1713, 1718, and 1719 continue to transit across the visible disk. From 20 April until the end of the forecast period, very low to low levels are expected.

No proton events are expected at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit is expected to be at normal to moderate levels with a chance for high levels on 24 April-02 May due to recurrent coronal hole high speed stream (CH HSS) effects.

Geomagnetic field activity is expected to be quiet to unsettled on 08-09 April due to weak CH HSS effects. Mostly quiet conditions will prevail until another CH HSS moves into geoeffective position on 23 April. Quiet to unsettle conditions with a chance for isolated active periods are expected on 23 April with quiet to unsettled levels on 24 April. Another CH HSS is expected to become geoeffective on 25-26 April causing unsettled to active conditions with minor storm periods possible. Conditions are expected to return to mostly quiet levels by 27 April through the end of the forecast period.

57. ANS-097 AMSAT News Service Weekly Bulletins

Newsgroup: rec.radio.amateur.space
Date: 2013-04-08 19:38:56 UTC
From: JoAnne Maenpaa <k9jkm@comcast.net>
Message-ID: <003801ce3490$9f5c89e0$de159da0$@net>
Source record: 34
Cross-posted to: rec.radio.amateur.space,rec.radio.info

AMSAT NEWS SERVICE
ANS-097

The AMSAT News Service bulletins are a free, weekly news and information service of AMSAT North America, The Radio Amateur Satellite Corporation. ANS publishes news related to Amateur Radio in Space including reports on the activities of a worldwide group of Amateur Radio operators who share an active interest in designing, building, launching and communicating through analog and digital Amateur Radio satellites.

The news feed on http://www.amsat.org publishes news of Amateur Radio in Space as soon as our volunteers can post it.

Please send any amateur satellite news or reports to:
ans-editor at amsat.org.

In this edition:

* AMSAT-NA Working on Coordination Issues with Experimental Satellites
* AMSAT YouTube Channel
* 2013 AMSAT Field Day Rules Posted On-Line
* ARRL Seeks Comments on 5 and 10 GHz National Band Plans
* Final IARU-R1 Vienna 2013 Papers Released
* First Satellite Contact Between Cuba and Ireland on FO-29
* NASA Seeks Academic Partners For Smallsat Technology Collaboration
* Upcoming ARISS Contacts

SB SAT @ AMSAT $ANS-097.01
ANS-076 AMSAT News Service Weekly Bulletins

AMSAT News Service Bulletin 097.01
From AMSAT HQ SILVER SPRING, MD.
April 7, 2013
To All RADIO AMATEURS
BID: $ANS-097.01

****
* Volunteers are needed to help at the AMSAT booth at Dayton. *
* Steve Belter N9IP, is looking for volunteers to help man the *
* AMSAT booth during the 2013 Hamvention. If you are willing *
* to help at the Hamvention, please send an e-mail by April 30 *
* to Steve Belter, n9ip@amsat.org. *
* *
* Monitor the 'AMSAT at Dayton Hamvention 2013' link on the new *
* AMSAT Web Site http://www.amsat.org for the latest AMSAT at *

* Dayton news and developments *
****

AMSAT-NA Working on Coordination Issues with Experimental Satellites

Over the past several months events have caused the Federal
Communications
Commission's (FCC) to more closely evaluate whether many of the small
satellite
projects proposed for launch should continue to be operated as
stations in the
Amateur-Satellite Service or instead be licensed as experimental
stations.
Based on the FCC's review, they determined that many do not really fit
as
Amateur projects and instead are requiring that the satellite
developers obtain
experimental licenses while still allowing them to operate in bands
allocated to
the Amateur-Satellite Service.

This has generated concern by the International Amateur Radio Union
(IARU) with
regard to whether it is appropriate for their Satellite Advisory Panel
to take
on the duty of coordinating what the FCC now views as non-amateur
satellites.

The IARU Satellite Adviser and his panel will coordinate frequencies
for
satellites to be licensed as experimental on an adhoc basis. The IARU
Satellite
Adviser is working closely with the FCC to prioritize the coordination
of
experimental satellites manifested on launches for the next few month.
Satellites licensed as amateur will not be affected and will be
coordinated as
before. The IARU is urging administrations to take series steps to
find
alternative allocations for experimental satellites and prioritize
their
participation of preparation for agneda item at WRC-18 if not at
WRC-15. "AMSAT
groups around the world are urged to work with their national
societies and
regulators to resolve the situation", the IARU Satellite Adviser said.

AMSAT-NA is working with the ARRL to investigate long-term solutions
to this situation while also addressing the short-term need for
satellites

already in the pipeline nearing launch.

AMSAT-NA recognizes the significant positive impact that the
university cubesat
programs have provided to the amateur radio satellite community,
including:

* Affordable launch opportunities as NASA and other government
policies
encourage development of university satellite programs

* Encouraging students and staff to embrace amateur radio through
obtaining
amateur radio licensees and establishing amateur radio ground
stations

* Providing the potential for more amateur radio communications
satellites as
the Fox-1 design is made operational, allowing both experimental
payloads
and amateur radio operations to be supported through a robust
and
dependable RF design

AMSAT-NA is committed to continue working with the FCC, IARU and ARRL
to develop
plans and processes that will address the needs and concerns of the
small
satellite community both short and long term.

[ANS thanks AMSAT President Barry Baines, WD4ASW, and
Hans van de Groenendaal, ZS6AKV, for the above information]

AMSAT YouTube Channel

AMSAT-NA is pleased to announce a dedicated YouTube channel for videos
on
and about amateur satellite operations. These will include
demonstration
videos as well as presentations at the AMSAT-NA Dayton Hamvention
Forum and
yearly General Membership Meeting and Symposium. It also links to the
AMSAT-UK and AMSAT-DL channels for additional views and perspectives.
The
AMSAT-NA channel may be reached through the www.amsat.org web site, or
directly via www.youtube.com/AMSATNA

[ANS thanks Alan, W4SCA, for the above information]

2013 AMSAT Field Day Rules Posted On-Line

AMSAT Director Contests and Awards, Bruce Paige, KK5DO reminds you that time of year is once again approaching - Field Day!

Each year the American Radio Relay League (ARRL) sponsors Field Day as an emergency preparedness exercise. This year Field Day is June 22-23, 2013.

The Radio Amateur Satellite Corporation (AMSAT) promotes its own version of Field Day for operation via the amateur satellites, held concurrently with the ARRL event.

With SO-50 being the only active FM satellite, Field Day this year will be challenging. If you are considering ONLY the FM voice satellites for your primary AMSAT Field Day focus: Don't, unless you are simply hoping to make one contact for the ARRL rules bonus points.

The congestion on FM LEO satellites was so intense in prior years that we must continue to limit their use to one-QSO-per-FM-satellite. This includes the International Space Station if it is operational. You will be allowed one QSO if the ISS is operating Voice. You will also be allowed one digital QSO with the ISS or any other digital, non-store-and-forward, packet satellite (if operational).

If you have worked the satellites on Field Day in recent years, you may have noticed a lot of good contacts can be made on the linear transponder satellites including VUsat OSCAR 52, Fuji OSCAR 29, and AMSAT OSCAR 7. During Field Day the transponders come alive like 20 meters on a weekend. The transponders on these satellites will support multiple simultaneous SSB or CW contacts.

The AMSAT Field Day 2013 event is open to all Amateur Radio operators. Amateurs are to use the exchange as specified in ARRL rules for Field Day. The AMSAT competition is to encourage the use of all amateur satellites, both analog and digital.

For the complete listing of the AMSAT Field Day Rules please refer to the documents posted on-line at:

http://www.amsatnet.com/2013fd.docx
http://www.amsatnet.com/2013fd.pdf

[ANS thanks AMSAT Director Contests and Awards, Bruce Paige, KK5DO for the above information]

ARRL Seeks Comments on 5 and 10 GHz National Band Plans

Chairman, ARRL UHF/Microwave Band Plan Committee, Rick Roderick, K5UR reports that a the draft documents of the 5 and 10 GHz band plans has been released for review.

The Committee, charted by the ARRL Board of Directors, has prepared draft band plans for 5 centimeters (5.650-5.925 GHz) and 3

centimeters (10-10.500 GHz).

Amateur Satellite allocations in the draft band plans include:
+ Amateur Satellite; Up-Link Only 5650.000 - 5670.000 MHz
+ Amateur Satellite; Down-Link Only 5830.000 - 5850.000 MHz
+ Space, Earth & Telecommand Stations 10450.000 - 10500.000 MHz

The band plan committee is requesting user comments via e-mail to microwave-band-plan@arrl.org by April 30, 2013.

The ARRL announcement, including links to the PDF copies of the proposed band plan documents can be accessed on-line at: http://tinyurl.com/ARRL-5-10GHZ-BandPlans (www.arrl.org)

[ANS thanks the ARRL UHF/Microwave Band Plan Committee for the above information]

Final IARU-R1 Vienna 2013 Papers Released

AMSAT-UK_Bevelled_LogoThe final set of VHF/UHF/uW papers for the IARU Region 1 Interim meeting in Vienna, April 20-21, have been released.

They include a number of papers related to Amateur-Satellite Service allocations:
* VIE13_C5_03 Increased Amateur-Satellite Service 144MHz Usage
* VIE13_C5_05 Recommendations for DATV Transmission
* VIE13_C5_24 Region 1 Satellite Coordinator Report
* VIE13_C5_27 New Narrow-Band working frequencies in the 2300-2450 MHz band
* VIE13_C5_32 2400MHz Amateur Satellites

Download the papers here: http://ukamsat.files.wordpress.com/2013/04/2013_vienna_documents_final.pdf

Discussion on the papers can be found on the RSGB C5 Yahoo Group at http://uk.groups.yahoo.com/group/ukc5discussion/

Article originally published at: http://amsat-uk.org/2013/04/02/final-iaru-r1-vienna-2013-papers-released/

[ANS thanks AMSAT-UK for the above information]

First Satellite Contact Between Cuba and Ireland on FO-29

Congratulations to Hector Martinez, CO6CBF and Joe Murphy, EI5EV for completing the first satellite contact between Cuba and Ireland on April 3, 2013 on FO-29.

The distance between CO6CBF and EI5EV is 6955.1 km. Both stations had a 66 second window within the FO-29 footprint. Hector wrote, "Doppler is always in play. We did the calculations based on the great feature implemented on SatPC32 V12.8b using the option of seeing the frequency you are at the satellite receiver. This was our common reference point. I was very satisfied when I heard Joe exactly on the frequency I was expecting!"

Hector operated from on top of a tall building which improved his horizon visibility toward Europe. He used a Yaesu FT-817ND transceiver, 30 watt power amplifier, and a homebrew Arrow with a homebrew mast mounted amplifier. Everything was powered by two 12 volt, 7 amp gel cell batteries.

FO-29 is at apogee which has increased the size of its footprint and improved chances for satellite DX contacts. Another example is Bob, W7LRD (grid CN87) reported a successful contact with Boris, UA0QJ (grid PP42) via FO-29 on March 26. The range between the two stations is 6268 km.

Hector would like to set up schedules with satellite operators in the FO-29 footprint. Please e-mail him at co6cbf[at]frcuba.co.cu.

[ANS thanks Hector Martinez, CO6CBF for the above information]

NASA Seeks Academic Partners For Smallsat Technology Collaboration

[Credit: This article was first published on the Microcom Space Newsfeed on April 2. This article can be accessed at: http://tinyurl.com/Microcom-NASA-Collaboration (spacenewsfeed.co.uk)]

NASA is seeking small spacecraft technology project proposals from U.S. colleges and universities that would like to collaborate with agency researchers.

Small spacecraft, or smallsats, represent a growing field of space research and operations in which universities often have led the way in technology development. Smallsats, some of which are as small as a four-inch cube, are not expected to replace conventional spacecraft, but sometimes can provide an alternative to larger, more costly spacecraft. Smallsats can serve as platforms for rapid technology testing or specialized scientific research and exploration not otherwise possible. Smallsats also can be developed relatively quickly and inexpensively, and can share a ride to orbit with larger spacecraft.

"This new opportunity will engage university students and graduate researchers in advancing technology of value to NASA and the nation, and help strengthen our high-tech work force," said Andrew Petro, program executive for the Small Spacecraft Technology Program at NASA Headquarters in Washington. "There is a vibrant small spacecraft community emerging within America's universities and NASA is

taking steps to increase our collaboration with that community. The universities will benefit from the deep experience NASA has in space research and technology, while NASA will benefit from fresh ideas and cost-conscious innovation at the universities."

NASA expects to competitively select approximately 10 proposals. Each team will form proposal partnerships with researchers from any of NASA's field centers. Awards for each project will include as much as $100,000 ($150,000 for teams of more than one school). Proposals submitted in response to this NASA cooperative agreement notice are due June 5.

In addition, NASA will fund the time for NASA employees to work with each selected team. Project funding is for one year with the potential to continue for a second year. Proposed projects could include anything from laboratory work to advance a particular spacecraft technology to flight testing of a new smallsat. For example, projects might focus on a technology area such as propulsion, power or communications, or on a smallsat capability, such as formation flight or satellite rendezvous.

The Small Spacecraft Technology Program is part of NASA's Space Technology Mission Directorate, which is innovating, developing, testing and flying hardware for use in NASA's future missions.

For additional news see:
http://www.spaceref.com/news/viewsr.html?pid=43721

[ANS thanks the Microcom Space Newsfeed for the above information]

Upcoming ARISS Contacts

An International Space Station school contact has been planned with participants
at Sir George Simpson Jr. High, Albert, AB, Canada on 09 April. The event is
scheduled to begin at approximately 20:00 UTC. The duration of the contact is
approximately 9 minutes and 30 seconds. The contact will be a telebridge between
OR4ISS and IK1SLD. The contact should be audible over portions of Italy.
Interested parties are invited to listen in on the 145.80 MHz downlink. The
contact is expected to be conducted in English and French.

Sir George Simpson Public School is a junior high located in St. Albert,
Alberta. Currently, with approximately 540 students enrolled in a variety of
programs.

An International Space Station school contact has been planned with participants
at Innalik School, Inukjuak, Nunavut, Canada on 12 April. The event is scheduled
to begin at approximately 17:30 UTC. The duration of the contact is approximately 9 minutes and 30 seconds. The contact will be a telebridge between
OR4ISS and IK1SLD. The contact should be audible over portions of Italy.
Interested parties are invited to listen in on the 145.80 MHz downlink. The
contact is expected to be conducted in English, French, and Inuktitut.

Inukjuak is a remote, fly-in Inuit community located on the Hudson Bay in
Northern Quebec. Its population is approximately 1600. The Inuit of Inukjuak
still partake in many cultural practices, for example; constructing sleds or
harpoons, sewing traditional garments, training dogsled teams, hunting, fishing
and berry picking. However, they also have a window into the modern world and
are current on fashion trends, popular music, and breakout phenomena like
"Gangnam Style". The primary language in the school and in the village is
Inuktitut; English and French are secondary languages.

ARISS is an international educational outreach program partnering the participating space agencies, NASA, Russian Space Agency, ESA, CNES, JAXA, and
CSA, with the AMSAT and IARU organizations from participating countries.

ARISS offers an opportunity for students to experience the excitement of Amateur
Radio by talking directly with crew-members on-board the International Space
Station. Teachers, parents and communities see, first hand, how Amateur Radio
and crew-members on ISS can energize youngsters' interest in science, technology,
and learning. Further information on the ARISS program is available on the
website http://www.ariss.org/ (graciously hosted by the Radio Amateurs of
Canada).

[ANS thanks David, AA4KN, for the above information]

/EX

In addition to regular membership, AMSAT offers membership in the President's Club. Members of the President's Club, as sustaining donors to AMSAT Project Funds, will be eligible to receive additional benefits. Application forms are available from the AMSAT Office.

Primary and secondary school students are eligible for membership at one-half the standard yearly rate. Post-secondary school students enrolled in at least half time status shall be eligible for the student rate for a maximum of 6 post-secondary years in this status. Contact Martha at the AMSAT Office for additional student membership information.

73,
This week's ANS Editor,
Lee McLamb, KU4OS

58. WSR-098 AMSAT Weekly Satellite Report

Newsgroup: rec.radio.amateur.space
Date: 2013-04-08 19:39:00 UTC
From: JoAnne Maenpaa <k9jkm@comcast.net>
Message-ID: <003701ce3490$3714d450$a53e7cf0$@net>
Source record: 35
Cross-posted to: rec.radio.amateur.space,rec.radio.info

```
This report is organized into four (4) parts.
Part 1 (S1) - operational analog amateur satellites
Part 2 (S2) - operational digital amateur satellites
Part 3 (S3) - non - operational satellites
Part 4 (S4) - deborbited/returned satellites

SB SAT @ AMSAT W8ISS $WSR-098.S1
WSR 098 Part 1 04/08/2013

AMSAT NEWS SERVICE BULLETIN 098.S1
FROM AMSAT HQ SILVER SPRING, MD, April 08, 2013
TO ALL RADIO AMATEURS
BID: $WSR-098.S1

PW-Sat
Catalog Number: 38083
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: On Orbit

Uplink: 435.020 MHz FM
Downlink: 145.900 MHz DSB

Beacon:

Callsign:

URL:

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=132
[02112013]
=====
DO-64 Delfi-C3
Catalog number: 32789
Launch Date: April 28, 2008 0354z
Launch site: Satish Dhawan Space Centre, India

Status: Operational
Current Mode: Science Mode - Beacon ONLY

Telemetry: 145.870 MHz

Downlink: 145.880 to 145.920 MHz
Uplink: 435.530 to 435.570 MHz
```

Delfi-C3 web page: http://www.delfic3.nl/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=68
[02112013]
=====
VO-52 HAMSAT
Catalog number: 28650
Launch Date: May 05, 2005 0444z
Launch site: Satish Dhawan Space Centre, India

Status: Operational
Current Mode: U/v - Dutch Transponder

Frequencies:
Indian Transponder:
Uplink: 435.220 to 435.280 MHz LSB/CW
Downlink: 145.930 to 145.870 MHz USB/CW

Dutch Transponder:
Uplink: 435.225 to 435.275 MHz LSB/CW
Downlink: 145.925 to 145.875 MHz USB/CW

Indian Beacon: 145.9360 MHZ CW
Dutch Beacon: 145.860 MHz 12WPM with CW message

Mode and Antenna Polarization:
V: LHCP
U: RHCP

Official Webpage: http://www.amsatindia.org/hamsat.htm

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=30

To know what transponder is switched on please listen for the beacon
that is active. Each transponder has a different beacon.
[02112013]
=====
SO-50 SAUDISAT-1C
Catalog number: 27607
Launch date: December 20, 2002 1700z
Launch site: Baikonur, Kazakhstan

Status: Operational

Current Mode: V/u

Uplink: 145.850 MHz FM - 67.0 Hz PL tone
Downlink: 436.795 MHz

Mode and Antenna Polarization:
V: Linear
U: Linear

Official Webpage: http://saudisat.kacst.edu.sa/index.shtml
(not up and running currently)

To switch the transmitter on, you need to send a CTCSS tone of 74.4
Hz. The order of operation is thus: (allow for Doppler as necessary):
1) Transmit on 145.850 MHz with a tone of 74.4 Hz to arm the 10 minute
timer on board the spacecraft.
2) Now transmit on 145.850 MHz (FM Voice) using 67.0 Hz to PT the re-
peater on and off within the 10 Minute window.
3) Sending the 74.4 tone again within the 10 minute window will reset
the 10 minute timer.
[02112013]
=====
FO-29 JAS-2
Catalog number: 24278
Launch Date: August 17, 1996

Status: Operational
Current Mode: V/u (Mode JA)

Voice/CW (Mode JA)
Uplink: 145.90 to 146.00 MHz CW/LSB
Downlink: 435.80 to 435.90 MHz CW/USB
Beacon: 435.795 MHz

Digital Mode JD
Uplinks: 145.850 MHz FM
145.870 MHz FM
145.910 MHz FM
Downlink: 435.910 MHz 1200-baud BPSK or 9600-baud FSK
Callsign: 8J1JCS
Digitalker: 435.910 MHz

Mode and Antenna Polarization:
V: RHCP
U: RHCP

For current operational schedule for FO-29:
http://www.ne.jp/asahi/m-arai/gkz/satinfo/fo29e.htm

JARL English webpage:
http://www.jarl.or.jp/English/5_Fuji/ejasmenu.htm

AMSAT-NA Webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID
=5&retURL=/satellites/status.php

Mineo Wakita, JE9PEL, has created a simple decoder program for FO29's
CW telemetry downlink: http://www.ne.jp/asahi/hamradio/je9pel/
fo29cwts.htm
[02112013]
=====
AO-7 AMSAT OSCAR 7
Catalog number: 07530

Launch Date: November 15, 1974
Launch site: Vandenberg AFB, California, USA

Status: Operational

Current Mode: Alternating between Mode A and B every 24 hours

Uplink: 145.850 to 145.950 MHz CW/USB Mode A
432.125 to 432.175 MHz CW/LSB Mode B
Downlink: 29.400 to 29.500 MHz CW/USB Mode A (1W PEP)
145.975 to 145.925 MHz CW/USB Mode B (8W PEP)
145.975 to 145.925 MHz CW/USB Mode C (2W PEP)
Beacons: 29.502 MHz CW
145.972 MHz CW
435.100 MHz CW
2304.100 MHz CW

Official Webpage:
http://www.amsat.org/amsat-new/satellites/sat_summary/ao7.php
[02112013]
=====
INTERNATIONAL SPACE STATION (ISS) - ARISS
Catalog number: 25544
Launch date: November 20, 1998 0640z (ZARYA module)
Launch sites: Baikonur, Kazakhstan
Kourou, French Guiana
Uchinoura Space Center, Japan
Kennedy Space Center, Titusville, Florida, USA

Status: Operational

Current Active Modes: FM Repeater - OFF
Voice - V/v
BBS - V/v
2m APRS - V/v
2m Digi - V/v
70cm APRS - ?
70cm Digi - ?
SSTV - V/v

Expedition 35 Crew (March 2013 - September 2013):
Commander: Chris Hadfield KC5RNJ/VA3OOG
Flight Engineer: Tom Marshburn KE5HOC
Flight Engineer: Roman Romanenko
Flight Engineer: Aleksandr Misurkin
Flight Engineer: Pavell Vladimirovich RV3BS
Flight Engineer: Christopher Cassidy KF5KDR

Available Modes and Frequencies:
Digital/APRS:
Worldwide 2m packet uplink: 145.825 MHz FM 1k2
Worldwide 2m packet downlink: 145.825 Mhz FM 1k2
Worldwide 70cm packet uplink: 437.550 Mhz FM 1k2

Worldwide 70cm packet downlink: 437.550 Mhz FM 1k2

Voice:
Region 1 voice uplink: 145.200 MHz FM
Region 2/3 voice uplink: 144.490 MHz FM
Worldwide downlink: 145.800 MHz FM

Crossband Repeater:
Repeater Uplinks: 1269.650 MHz FM
437.800 MHz FM
145.990 MHz FM - 67.0 PL (Kenwood)
Repeater Downlink: 145.800 MHz FM
437.800 MHz FM (Kenwood)

SSTV Robot 36:
Downlink: 145.800 MHz FM

Mode and Antenna Polarization:
V: Linear
U: Linear

Callsigns:
Belgian: OR4ISS
German: DP0ISS
Russian: RS0ISS
RZ3DZR
United States: NA1SS
2m Packet Mailbox: RS0ISS-11
2m Digipeater alias: ARISS
70cm Packet Mailbox: RS0ISS-1
70cm Digipeater callsign: RS0ISS
70cm Digipeater alias: ARISS

Official ARISS Webpage: http://www.rac.ca/ariss
ISS Fan Club Webpage: http://www.issfanclub.com
APRS tracking page: http://www.ariss.net/

ISS Daily Crew Schedule: http://spaceflight.nasa.gov/station/timelines
Remember that the crew operates on UTC time. Also, all of the time
line is NOT translated from Russian and posted.
[04082013]
NNNN
/EX

SB SAT @ AMSAT W8ISS $WSR-098.S2
WSR 098 Part 2 04/08/2013

AMSAT NEWS SERVICE BULLETIN 098.S2
FROM AMSAT HQ SILVER SPRING, MD, April 08, 2013
TO ALL RADIO AMATEURS
BID: $WSR-098.S2

STRaND-1
Catalog Number:
Launch Date: February 25, 2013 12:31z
Launch Site: Satish Dhawan Space Centre, India

Status: Operational

Uplink:
Downlink:437.568MHz 9k6 FSK

Beacon: None(?)

Callsign:

URL: http://www.sstl.co.uk/Missions/STRaND-1--Launched-2013
[03042013]
=====
Fitsat-1
Catalog number: 38853
Launch Date: October 04, 2012
Launch site: Kibo Japanese Experiment Module, International Space
Station

Status: Operational

Uplink:
Downlink(s): 437.445MHz 1k2 AFSK
5840.00 MHz 115k2 data
LED CW (200w pulses)

Beacon(s): 437.250 MHz CW

Callsign: NIWAKA

URL: http://carpcomm.com/satellite/fitsat1
[10292012]
=====
TechEdSat
Catalog number: 38854
Launch date: October 04, 2012
Launch site: Kibo Japanese Experiment Module, International Space
Station

Uplink(s):
Downlink(s): 437.465 1k2 AFSK

Beacon(s):

Callsign:

URL:http://www.techedsat.com/
[10152012]
=====
We Wish
Catalog number: 38856
Launch date: October 04,2012

Launch Site: Kibo Japanese Experiment Module, International Space
Station

Uplink(s):
Downlink(s): 437.505MHz 1k2 AFSK
437.505MHz SSTV

Beacon(s): 437.505MHz CW

Callsign: JQ1ZIJ

URL:
[10152012]
=====
F-1
Catalog number: 38855
Launch Date: October 04, 2012
Launch Site: Kibo Japanese Experiment Module, International Space
Station

Uplink(s):
Downlink(s): 145.980MHz 1k2 AFSK
437.485MHz FM moduled CW

Baecon(s):

Callsign: XV1VN

URL: http://fspace.edu.vn/
[10152012]
=====
Aeneas
Catalog Number: 38760
Launch Date: September 13, 2012 2139z
Launch Site: Wallops Island, Virginia, USA

Status: On Orbit

Uplink: WiFi 2425MHz
Downlink:
WiFi: 2425MHz
Spread Spectrum: Somewhere in the 70cm band

Beacon: 437.600MHz 1k2 ax25 every 10 seconds

Callsign:

URL:
[10012012]
=====
CSSWE (Colorado Student Space Weather Experiment)
Catalog Number: 38761
Launch Date: September 12, 2012 2139z
Launch Site: Wallops Island, Virginia, USA

Status: On Orbit

Uplink:
Downlink: 437.345MHz 9k6 with ax.25

Beacon:

Callsign:

URL:
[10012012]
=====
CP5 (Polysat)
Catalog Number: 38763
Launch Date: September 12, 2012 2139z
Launch Site: Wallops Island, Virginia, USA

Status: On Orbit

Uplink:
Downlink: 437.405MHz AFSK on LSB ax.25 over NRZI at 1k2 baud,
every 2
minutes, begins 3.5 hours after first turn-on

Beacon:

Callsign:

URL:
[10012012]
=====
CXBN (Cosmic X-Ray Background Nanosatellite)
Catalog Number: 38762
Launch Date: September 12, 2012 2139z
Launch Site: Wallops Island, Virginia, USA

Status: On Orbit

Uplink:
Downlink: 437.525MHz GFSK ax.25

Beacon:

Callsign:

URL:
[10012012]
=====
Proiteres
Catalog Number: 38756
Launch Date: September 09, 2012 2139z
Launch Site: Satish Dhawan Space Centre, India

Status: On Orbit

Uplink:
Downlink: 437.485MHz FM/AFSK

Beacon:

Callsign: JL3YZK

URL:
[10012012]
=====
RS-40 MiR (Yubileiny-2)
Catalog Number: 38735
Launch Date: July 28, 2012
Launch Site: Plesetsk Missile and Space Complex, Russia

Status: On Orbit

Uplink:
Downlink(s): 435.265 MHz
435.365 MHz

Beacon:

Callsign:

URL:
[08272012]
=====
HORYU-II
Catalog number: 38340
Launch Date: May 17, 2012 1639z

Status: On Orbit

Uplink: 145.??? MHz
Downlink: 437.375 MHz CW/AX25/FSK

Beacon: 437.375 MHz CW

Callsign: JG6YBW

URL:

IARU Coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=216
[10012012]
=====
XaTcobeo
Catalog Number: 38082
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: Operational

Uplink:
Downlink: 437.365 MHz FFSK with AX.25

Beacon:

Callsign:

URL:

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=135
[100162012]
=====
UniCubeSat
Catalog Number: 38085(?)
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: Operational

Uplink:
Downlink: 437.305 MHz 9k6 bps GMSK

Beacon:

Callsign:

URL:
http://www.gaussteam.com/index.php?option=com_content&view=article&id=
96:unicu
besat&catid=36:unicubesat&Itemid=183

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=133
[10012012]
=====
Robusta
Catalog Number: 38083(?)
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: On Orbit

Uplink:
Downlink: 437.325 MHz 1k2 FM telemetry (data every 3 min, 20 sec.
burst)

Beacon:

Callsign:

URL:

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=122
[10012012]
=====
MO-72 MaSat-1
Catalog Number: 38081

Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: Operational

Uplink:
Downlink: 437.345 MHz GFSK 625/1250 bps
437.345 MHz CW

Beacon:

Callsign:

URL:

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=126
[10012012]
=====
Goliat
Catalog Number: 38084(?)
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: Operational

Uplink:
Downlink: 437.485 MHz 1k2 AFSK

Beacon:

Callsign:

URL:

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=98
[10012012]
=====
E-St@r
Catalog Number: 38079
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: On Orbit

Uplink:
Downlink: 437.445 MHz 1k2 bps AFSK

Beacon:

Callsign:

URL:

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=130
[10012012]
=====
ALMASat-1
Catalog Number: 38078
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: On Orbit

Uplink:
Downlink: 437.465 MHz 1k2 bps FSK
2407.850 MHz

Beacon:

Callsign:

URL:

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=39
[10012012]
=====
RS-39 Chibis-M
Catalog Number: 38051
Launch Date: October 30, 2011 10:11:00 UTC
Launch site: Tyuratam (Baikonur Cosmodrome), Kazakhstan

Status: Operational

Uplink:
Downlink:

Beacon: 435.315 MHz CW
435.215 MHz CW

Callsign:

URL:

IARU coordination status page:
[07302012]
=====
JUGNU
Catalog Number: 37839
Launch Date: October 12, 2011 05:30:00 UTC
Launch site: Satish Dhawan Space Centre, India

Status: On Orbit

Uplink: 145.??? MHz 1k2 (mode?)
Downlink: 437.505 MHz 9k6 (mode?)

Beacon: 437.275 MHz 15 wpm (?) CW

Callsign:

URL: http://www.iitk.ac.in/me/jugnu/index.htm

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=160
[07092012]
=====
SRMSAT
Catalog Number: 37841
Launch Date: October 12, 2011 05:30:00 UTC
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Uplink: 145.900 MHz 1k AX.25 (speed?)
Downlink: 437.500 MHz 2k4 AX.25

Beacon: 437.425 MHz 12 wpm CW

Callsign:

URL: http://srmsat.in/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=181
[01282013]
=====
HRBE (E1P Explorer 1 [Prime] CubeSat (E1P-U2))
Catalog Number: 37855
Launch Date: October 28, 2011
Launch site: Vandenberg Air Force Base, California, USA

Status: On Orbit

Uplink: 437.305 MHz (???)
Downlink: 437.505 MHz AX.25 (SSB?)

Beacon:

Callsign:

URL: http://ssel.montana.edu/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=116
[01122012]
=====
M-Cubed
Catalog Number: 37855
Launch Date: October 28, 2011
Launch site: Vandenberg Air Force Base, California, USA

Status: On Orbit

Uplink:
Downlink: 437.485 MHz AX.25

Beacon:

Callsign:

URL: http://umcubed.org/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=215
[01122012]
=====
RAX-2
Catalog Number: 37853
Launch Date: October 28, 2011
Launch site: Vandenberg Air Force Base, California, USA

Status: Operational

Uplink:
Downlink: 437.345MHz 9k6 GMSK

Beacon:

Callsign:

URL: http://rax.engin.umich.edu//

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=221
[03232012]
=====
AO-71 AubieSat-1
Catalog Number: 37854
Launch Date: October 28, 2011
Launch site: Vandenberg Air Force Base, California, USA

Status: On Orbit

Uplink:
Downlink: 437.475 MHz 1k2 AX.25

Beacon: 437.475 MHz CW

Callsign: KI4NQO

URL: http://www.space.auburn.edu/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=148
[12262011]
=====
O/OREOS
Catalog Number: 37224
Launch Date: November 20, 2010

Launch site: Kodiak Launch Complex, Alaska, USA

Status: On Orbit

Uplink:
Downlink: 437.035 MHZ AX.25

Beacon:

Callsign:

URL: http://www.ooreos.org/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=146
[02092011]
=====
Rax-1 Radio Aurora Explorer
Catalog Number: 37223
Launch Date: November 20, 2010
Launch site: Kodiak Launch Complex, Alaska, USA

Status: On Orbit

Uplink:
Downlink: 437.505 MHz 9k6 GMSK

Beacon:

Callsign: RAX-1

URL: http://rax.engin.umich.edu/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=165
[02092011]
=====
FO-69 Fastrac-1 Sara Lily
Catalog Number: 37227
Launch Date: November 20, 2010
Launch site: Kodiak Launch Complex, Alaska, USA

Status: Operational

Uplink 1: 145.980 MHz 1k2 baud
Uplink 2: 145.825 MHz 1k2 baud
Downlink: 437.345 MHz 1k2 and 9k6 baud

Beacon: 437.435 MHz 1k2 AX.25

Callsign: Fast1

URL: http://fastrac.ae.utexas.edu/index.php

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=83

[07052011]
=====
FO-70 Fastrac-2 Emma
Catalog Number: 37380
Launch Date: November 20, 2010
Launch site: Kodiak Launch Complex, Alaska, USA

Status: Operational

Uplink 1: 435.025 MHz 1k2 baud
Uplink 2: 437.435 MHz 9k6 baud
Downlink: 145.825 MHz 1k2 and 9k6 baud

Beacon: 145.825 MHz 1k2 AX.25

Callsign: Fast2

URL: http://fastrac.ae.utexas.edu/index.php

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=84
[12162011]
=====
StudSat
Catalog Number: 36796
Launch Date: July 12, 2010 0352z
Launch site: Satish Dhawan Space Centre, India

Status: On Orbit

Uplink: 437.505MHz, 9600bps FSK
Downlink: 437.505MHz, 9600bps FSK
Beacon : 437.505MHz, 20bps ASK

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=164
[02092011]
=====
TIsat-1
Catalog Number: 36799
Launch Date: July 12, 2010 0352z
Launch site: Satish Dhawan Space Centre, India

Status: On orbit

Callsign: HB9DE

Uplink: 145.980MHz FM, AFSK
Downlink: 437.305MHz FM, AFSK
Beacon: 437.305MHz CW

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=118
[02092011]

=====
SwissCube
Catalog Number: 35932
Launch Date: September 23, 2009 0621z
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Callsign: HB9EG

Beacon(100mw): 437.5050MHz CW
Beacon(1w): 437.5050MHz FSK 1k2bps

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=109
[02092011]
=====
UWE-2
Catalog Number: 35934
Launch Date: September 23, 2009 0621z
Launch site: Satish Dhawan Space Centre, India

Status: In Orbit

Beacon(500mw): 437.3850 MHz AFSK 1k2bps
437.3850 MHz FSK 9k6bps

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=110
[02092011]
=====
ITUpsAT1
Catalog Number: 35935
Launch Date: September 23, 2009 0621z
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Beacon(100mw): 437.325MHz CW
Beacon(1w): 437.325MHz 19k2bps

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=113
[02092011]
=====
BEESAT
Catalog Number: 35933
Launch Date: September 23, 2009 0621z
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Callsign: DP0BEE

Beacon(100mw): 436.000MHz CW
Beacon(500mw): 436.000MHz GMSK 4k8bps
Beacon(500mw): 436.000MHz GMSK 9k6bp
[02092011]
=====
SOHLA-1 (ASTRO TECH.)
Catalog Number: 33496
Launch Date: January 23, 2009 0354z
Launch site: Tanegashima Space Center, Japan

Status: Operational

Proposed Frequencies and Modes:
Downlink: 437.505 MHz AFSK/CW
Beacon: 437.505 MHz AFSK/CW

Callsign:

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=101
[02092011]
=====
KAGAYAKI (Solan Co.)
Catalog Number: 33495
Launch Date: January 23, 2009 0354z
Launch site: Tanegashima Space Center, Japan

Status: In Orbit

Downlink: 437.375 MHZ FSK9k6/CW
Beacon: 437.375 MHz FSK9k6/CW

IARU coordination status page:

AMSAT-NA webpage:

[02092011]
=====
STARS (Kagawa Univ.) (Twin Satellites)
Catalog Number: 33498
Launch Date: January 23, 2009 0354z
Launch site: Tanegashima Space Center, Japan

Status: Operational ?

Downlinks: 437.485 MHz FM/CW
437.465 MHz FM/CW
Beacons: 437.305 MHz FM/CW
437.275 MHz FM/CW

Callsigns: JR5YBN
JR5YBO

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=99

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=121&retURL
=/satellites/status.php
[02092011]
=====
KKS-1 (Tokyo MCIT)
Catalog Number: 33499
Launch Date: January 23, 2009 0354z
Launch site: Tanegashima Space Center, Japan

Status: Operational

Downlink: 437.455 MHz AFSK/CW
Beacon: 437.385 MHz AFSK/CW

Callsign: JQ1YYY

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=107

AMSAT-NA webapge:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=120&retURL
=/satellites/status.php
[20092011]
=====
PRISM (Tokyo Univ.)
Catalog Number: 33493
Launch Date: January 23, 2009 0354z
Launch site: Tanegashima Space Center, Japan

Status: Operational

Uplink: 145.xxx MHz AFSK 1k2
Downlink: 437.425 MHz AFSK 1k2
Beacon: 437.250 MHz CW

Callsign: JQ1YCX

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=97

Read terms and conditions of operations at the PRISM web page to find
out how
to properly operate on the satellite and to get the uplink frequency.
It
has
been asked that the uplink frequency not be given out untik you have
read and
understood the terms of usage.

URL:
http://www.space.t.u-tokyo.ac.jp/prism/en/HAMservice.html
[10282012]
=====
RS-30 Radio Sputnik 30 (Yubileiny)

Catalog Number: 32953
Launch Date: May 23, 2008 1520z
Launch site: Plesetsk Missile and Space Complex, Russia

Status: Operational

Curent Modes: Telemetry
Audio
Images

Downlinks: 435.315 MHz
435.215 MHz

AMSAT-NA website:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=115&ret
URL=/satellites/status.php

Official website:
http://www.npopm.com/?cid=leoca&caid=43
[02092011]
=====
CanX-2
Catalog number: 32790
Launch Date: April 28, 2008 0354z
Launch site: Satish Dhawan Space Centre, India

Status: Operational in range of ground station only

Downlink: 437.478 MHz GFSK

For the latest project status update please visit the Can X-2 web
page: http://www.utias-sfl.net/nanosatellites/CanX2/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=46
[02092011]
=====
AAUSAT-II
Catalog number: 32788
Launch Date: April 28, 2008 0354z
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Downlink: 437.425 MHz 1k2 baud packet

For the latest project status update please visit the AAUSAT-II web
page:
http://www.aausatii.aau.dk/homepage/index.php?language=en&page=home

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=60
[02092011]
=====

CO-65 CUTE-1.7+APD II
Catalog number: 32785
Launch Date: April 28, 2008 0354z
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Downlink: 437.475 MHz 9k6 Packet
Uplink: 1267.600 Mhz

Telemetry Beacon:
Downlink: 437.2750 MHz CW

For the latest project status update please visit the Cute-1.7+APD II
web page: http://lss.mes.titech.ac.jp/ssp/cute1.7/index_e.html

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=78

Command Station blog website:
http://lss.mes.titech.ac.jp/ssp/cute1.7/blog/

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=112&retURL
=/satellites/status.php
[03232012]
=====
Compass-1
Catalog number: 32787
Launch Date: April 28, 2008 0354z
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Current Mode: dependant on last received command

Uplink: 145.980 MHz FM
Downlink: 437.275 Mhz CW
437.405 MHz Packet

For the latest project status update please visit the Compass 1 web
page: http://www.raumfahrt.fh-aachen.de/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=52

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=114&retURL
=/satellites/status.php
[06162011]
=====
CO-66 Seeds II
Catalog number: 32791
Launch Date: April 28, 2008 0354z

Launch site: Satish Dhawan Space Centre, India

Status: Operational

Downlink: 437.485 MHz

Callsign: JQ1YGU

For the latest project status update please visit the Seeds 2 web
page: http://cubesat.aero.cst.nihon-u.ac.jp/english/seeds_2_e.html

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=36

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=113&retURL
=/satellites/status.php
[073092011]
=====
CAPE-1
Catalog Number: 31130
Launch Date: April 17,2007 0702z
Launch site: Baikonur, Kazakhstan

Status: Intermittent

Current Mode: /u

TLM Downlink: 435.245 MHz 9600 bs FSK AX.25
CW Beacon: 435.245 MHz CW

Callsign: K5USL

TLM and CW interchange every 30 seconds.

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=94&retURL=
/satellites/status.php

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=72
[02092011]
=====
CP3
Catalog Number: 31129
Launch Date: April 17,2007 0702z
Launch site: Baikonur, Kazakhstan

Status: Operational

Current Mode: /u

Downlink: 436.845 MHz 1200 bps AFSK AX.25

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=74

[02092011]
=====
CO-58 CubeSat XI-V
Catalog number: 28895
Launch Date: October 27, 2005 0652z
Launch site: Plesetsk Missile and Space Complex, Russia

Status: Operational - CW Beacon only

Current Mode: /u

Telemetry Downlink: 437.4250 MHz AFSK 1200bps using AFK protocol
Beacon: 437.2750 MHz CW

Callsign: JQ1YGW

Official Webpage: http://www.space.t.u-tokyo.ac.jp/cubesat/mission/V/

Pictures received by Mineo Wakita - JE9PEL:
http://www.ne.jp/asahi/hamradio/je9pel/xivpicte.htm

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=37
[02092011]
=====
CO-57 CubeSat XI-IV
Catalog number: 27848
Launch date: June 30, 2003 1415z
Launch site: Plesetsk Missile and Space Complex, Russia

Status: ?????

Current Mode: /u

Beacon: 436.8475 MHz CW
Telemetry : 437.4900 MHz AFSK 1200 BPS

Callsign: JQ1YGW

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=96&retURL
=/satellites/status.php

Official Webpage: http://www.space.t.u-tokyo.ac.jp/cubesat/mission/V/
[02092011]
=====
QuakeSat
Catalog Number: 27845
Launch Date: June 30, 2003 1415z
Launch site: Plesetsk Missile and Space Complex, Russia

Status: Telemetry only

Current Mode: 9600 baud data packet

Mode U packet
Downlink: 436.675 MHz 9k6 BPS

Quakesat webpage:
http://www.quakefinder.com/services/quakesat-ssite/
[02252011]
=====
CO-55 Cute-1.7+APD II
Catalog Number: 27844
Launch date: June 30, 2003 1415z
Launch site: Plesetsk Missile and Space Complex, Russia

Status: Operational

Current Mode: CW downlink worldwide
AX25 Packet with uplink command over Japan only

Mode U Telemetry
Downlink: 437.4000 MHz AFSK 1200 BPS

Mode U TLM Beacon
Downlink: 436.8375 MHz CW

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=69&retURL
=/satellites/status.php

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=78
[02092011]
=====
NO-44 PCSAT
Catalog number: 26931
Launch Date: September 30, 2001 0240z
Launch site: Kodiak Launch Complex, Alaska, USA

Status: Operational

Current Mode: V/v

General Usage Uplink/Downlink: 145.827 MHz 1200 Baud
Special Usage Downlink: 144.390 Mhz 1200 Baud

PCSAT APRS page: http://pcsat.aprs.org

aprstlm Telemetry Decoder program:
http://www.xciv.org/~iain/aprstlm/v1.2/
[10292012]
=====
RS-22 RADIO SPORT 22 (MOZHAYETS 4)
Catalog number: 27939
Launch Date: September 27, 2003 0612z
Launch site: Plesetsk Missile and Space Complex, Russia

Status: Operational - 70cm cw only

Current Mode: /u

CW Beacon - 435.352 MHz
145.818 MHz

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=76&retURL
=/satellites/status.php
[02092011]
=====
LO-19 LUSAT
Catalog number: 20442
Launch date: January 22, 1990
Launch site: Kourou, French Guiana

Status: CW Beacon only

Uplinks: 145.840 MHz 1200-baud Manchester FSK
145.860 MHz 1200-baud Manchester FSK
145.880 MHz 1200-baud Manchester FSK
145.900 MHz 1200-baud Manchester FSK

CW downlink: 437.125 MHz

Digital downlink: 437.150 MHz SSB (RC-BPSK 1200-baud PSK)

Broadcast Callsign: LUSAT-11
BBS: LUSAT-12

General information and telemetry samples can be found at:
www.telecable.es/personales/ea1bcu
[02092011]
=====
UO-11 OSCAR-11
Catalog number: 14781
Launch Date: March 1, 1984
Launch site: Vandenburg AFB, California, USA

Status: Operational ?

Current Mode: /v

Telemetry Downlink: 145.825 MHz FM 1200 AFSK
UHFBeacon: 435.025 MHz
Mode-S Beacon: 2401.500 MHz

Mode and Antenna Polarization:
V: RHCP
S: LHCP

Webpage: http://www.users.zetnet.co.uk/clivew/
MPEG3 files: http://www.ne.jp/asahi/hamradio/je9pel/uo11tlme.htm
[07052011]
=====
INTERNATIONAL SPACE STATION (ISS) - ARISS

Catalog number: 25544
Launch date: November 20, 1998 0640z (ZARYA module)
Launch sites: Baikonur, Kazakhstan
Kourou, French Guiana
Uchinoura Space Center, Japan
Kennedy Space Center, Titusville, Florida, USA

Status: Operational

Current Active Modes: FM Repeater - OFF
Voice - V/v
BBS - V/v
2m APRS - V/v
2m Digi - V/v
70cm APRS - ?
70cm Digi - ?
SSTV - V/v

Expedition 35 Crew (March 2013 - September 2013):
Commander: Chris Hadfield KC5RNJ/VA3OOG
Flight Engineer: Tom Marshburn KE5HOC
Flight Engineer: Roman Romanenko
Flight Engineer: Aleksandr Misurkin
Flight Engineer: Pavell Vladimirovich RV3BS
Flight Engineer: Christopher Cassidy KF5KDR

Available Modes and Frequencies:
Digital/APRS:
Worldwide 2m packet uplink: 145.825 MHz FM 1k2
Worldwide 2m packet downlink: 145.825 Mhz FM 1k2
Worldwide 70cm packet uplink: 437.550 Mhz FM 1k2
Worldwide 70cm packet downlink: 437.550 Mhz FM 1k2

Voice:
Region 1 voice uplink: 145.200 MHz FM
Region 2/3 voice uplink: 144.490 MHz FM
Worldwide downlink: 145.800 MHz FM

Crossband Repeater:
Repeater Uplinks: 1269.650 MHz FM
437.800 MHz FM
145.990 MHz FM - 67.0 PL (Kenwood)
Repeater Downlink: 145.800 MHz FM
437.800 MHz FM (Kenwood)

SSTV Robot 36:
Downlink: 145.800 MHz FM

Mode and Antenna Polarization:
V: Linear
U: Linear

Callsigns:
Belgian: OR4ISS
German: DP0ISS
Russian: RS0ISS
RZ3DZR
United States: NA1SS
2m Packet Mailbox: RS0ISS-11
2m Digipeater alias: ARISS
70cm Packet Mailbox: RS0ISS-1
70cm Digipeater callsign: RS0ISS
70cm Digipeater alias: ARISS

Official ARISS Webpage: http://www.rac.ca/ariss
ISS Fan Club Webpage: http://www.issfanclub.com
APRS tracking page: http://www.ariss.net/

ISS Daily Crew Schedule: http://spaceflight.nasa.gov/station/timelines
Remember that the crew operates on UTC time. Also, all of the time
line is NOT translated from Russian and posted.
[04082013]
NNNN
/EX

SB SAT @ AMSAT W8ISS $WSR-098.S3
WSR 098 Part 3 03/08/2013

AMSAT NEWS SERVICE BULLETIN 098.S3
FROM AMSAT HQ SILVER SPRING, MD, April 08, 2013
TO ALL RADIO AMATEURS
BID: $WSR-098.S3

THE FOLLOWING ARE IN ORBIT BUT ARE NON-OPERATIONAL AT THIS TIME:

NANOSAIL-D
Catalog Number: 37361
Ejection Date: January 17, 2011

Status: Non - Operational

Downlink: 437.270 MHz AX.25

URL: http://nanosaild.engr.scu.edu/dashboard.htm

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=115
[07302012]
=====
HO-68 HOPE-1 (CAS-1) (XW-1)
Catalog Number: 36122
Launch Date: December 15, 2009 0231z
Launch site: Taiyuan Space Center, PRC

Status: Telemetry only

Callsign:
Broadcast: BJ1SA-11
BBS: BJ1SA-12

Uplinks: 145.8250 MHz FM, PL 67.0 Hz.
145.9250 - 145.9750 MHz SSB/CW
145.8250 MHz AFSK 1200 BPS
Downlinks: 435.6750 MHz FM
435.7650 - 435.7150 MHz SSB/CW
435.6750 MHz AFSK 1200 BPS

Beacon: 435.7900 MHz CW

Mode and Antenna Polarization:
V: LHCP 2.0dBi max
U: RHCP 3.0dBi max

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=108

For more information about XW-1 (CAS-1):
http://
[04302012]
=====
SO-67 SumbandilaSat
Catalog Number: 35870
Launch Date: September 17, 2009 1555z
Launch site: Baikonur, Kazakhstan

Status: Non - Operational

Callsign: ZS0SUM

Uplink: 145.875MHz FM tone 233.6 Hz
Downlink: 435.345MHz FM

Mode and Antenna Polarization:
V: Linear
U: Linear

For more information about SO-67:
http://www.amsatsa.org.za/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=88
[01272012]
=====
CP4
Catalog Number: 31132
Launch Date: April 17, 2007

Status: Non-Operational

Current Mode: /u

TLM Downlink: 437.325 MHz 1200 bps FSK AX.25
CW Beacon: 437.325 MHz CW

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=79
[09062010]
=====
LIBERTAD-1
Catalog Number: 31128
Launch Date: April 17, 2007

Status: Non-Operational

Current Mode: V/u APRS Packet ax25

Callsign: 5K3L

Uplink: 145.825 MHz 1200 AFSK ax25 APRS
Downlink: 437.399 MHz 1200 AFSK ax25 APRS

Telemetry Beacon: 437.4050 MHz 1200 AFSK ax25

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=76
[09062010]
=====
PO-63 PEHUENSAT-1
Catalog Number: 29712
Launch Date: January 10, 2007

Status: Non-Operational

Current Mode: V/v

Uplink/Downlink: 145.825 Mhz FM
Voice Recorder: 145.825 Mhz FM

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=51
[09062010]
=====
NCUBE-2
Catalog number: 28897
Launch Date: October 27, 2005

Status: Still attached to XO-53 (SSETI)?

Proposed Callsign: TBA
Proposed Transmit Frequency: 437.305
2407.250

Official Website: http://www.ncube.no

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=24
[09062010]

=====
XO-53 SSETI
Catalog number: 28894
Launch Date: October 27, 2005

Status: Non-operational

Voice Uplink: 437.250 MHz FM 67Hz CTCSS
Voice Downlink: 2401.835 MHz FM
Packet Up/Downlink: 437.250 MHz 9k6 packet
Packet Downlink 2401.835 MHz 38k4 packet

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=54
[09062010]
=====
UWE-1
Catalog Number: 28892
Launch Date: October 27, 2005

Status: Non-Operational

Mode U Telemetry
Downlink: 437.5050 MHz 9600 AFSK

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=53
[09062010]
=====
AO-51 ECHO
Catalog number: 28375
Launch date: June 29, 2004 0745z
Launch site: Baikonur, Kazakhstan

Status: Non - Operational

Current Mode(s):
Voice repeater: V/u
Uplink: 145.880 MHz FM
Downlink: 435.150 MHz FM

Telemetry: Recovery efforts
Downlink: 435.150MHz 9k6

Analog voice downlink: 435.300 MHz FM
435.150 MHz FM
2401.200 Mhz FM
Analog voice uplink: 145.860 MHZ FM
145.880 MHz USB
145.880 MHz FM
145.920 MHz FM
145.920 MHz FM - 67 Hz PL tone burst
1268.705 MHz FM

Digital Downlinks: 435.150 MHz FM 38k4 PBP, 1 watt output
435.150 MHz FM 9k6 Pacsat Broadcast
Protocol
2401.200 MHz FM 38k4 bps, AX.25
Digital Uplink: 145.860 MHz FM 9k6 Pacsat Broadcast
Protocol
1268.703 mhz FM 9k6 Pacsat Broadcast
Protocol
Beacon: 435.150 MHz

Mode and Antenna Polarization:
T: Linear
V: Linear
U: TX A (usually digital)LHCP
TX B (usually analog) RHCP
L: Linear
S: Linear

Broadcast: PECHO-11
BBS: PECHO-12

Official Webpage: http://www.amsat.org/amsat-new/echo/CTNews.php

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=19
[12062011]
=====
CANX-1
Catalog Number: 27847
Launch Date: June 30, 2003

Status: Non-Operational

Downlink: 437.8800 MHz AFSK 1k2bps
[06052009]
=====
DTUSAT
Catalog Number: 27842
Launch Date: June 30, 2003

Status: Non-Operational

Current Mode: 2k4 AFSK Packet last reported

Downlink: 437.475MHz

Officail webpage: http://dtusat1.dtusat.dtu.dk/

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=101&retURL
=satellites/all_oscars.php
[02212009]
=====
AO-49 AATiS OSCAR-49 (SAFIR-M)

Catalog number: 27605
Launch Date: December 20, 2002

Status: Non-operational.

Uplink: 435.275 MHz 1200-baud AFSK
Downlink: 145.825 MHz 9600-baud FSK
(optional voice message)

Broadcast callsign: DP0AIS

Official webpage: http://amend.gmxhome.de
[01222007]
=====
MO-46 TIUNGSAT-1
Catalog number: 26548
Launch date: September 26, 2000

Status: Telemetry only

Uplinks: 145.850 MHz
145.925 MHz 9600-baud FSK
Downlink: 437.325 MHz

Broadcast callsign: MYSAT3-11
BBS: MYSAT3-12

TiungSat-1 is Malaysia's first micro-satellite and in addition to
commercial land and weather imaging payloads offers FM and FSK
Amateur Radio communication.

TiungSat-1, named after the mynah bird of Malaysia, was developed as
a collaborative effort between the Malaysian government and Surrey
Satellite Technology Ltd.
[03302009]
=====
NO-45 SAPPHIRE
Catalog number: 26932
Launch Date: September 30, 2001

Status: Non-Operational

Downlink: 437.095 MHz 1200 baud AX-25 AFSK
Uplink: 145.945 MHz UI Digipeater
Digi Callsign: KE6QMD

Everyone is welcome to use the digipeating/APRS features of Sapphire,
as per the user service agreement located at the following URL:
http://web.usna.navy.mil/~bruninga/pcsat/contract.txt
[03132005]
=====
SO-42 SAUDISAT-1B
Catalog number: 26549
Launch date: September 26, 2000

Status: Non-Operational

Downlink: 437.075 MHz

Broadcast Callsign: SASAT2-11
BBS: SASAT2-12

Further information is available at:
http://www.amsat.org/amsat/sats/n7hpr/so42.html
[01222007]
=====
SO-41 SAUDISAT-1A
Catalog number: 26545
Launch Date: September 26, 2000

Status: Non-Operational

Uplink: 145.850 MHz
Downlink: 436.775 MHz

Broadcast Callsign: SASAT1-11
BBS: SASAT1-12

Further information is available at:
http://www.amsat.org/amsat/sats/n7hpr/so41.html
[01222007]
=====
AO-40 AMSAT OSCAR 40
Catalog number: 26609
Launch Date: November 16, 2000

Status: Non-Operational

Uplinks

V-band: 145.840 - 145.990 MHz CW/LSB
U-band: 435.550 - 435.800 MHz CW/LSB
L1-band: 1269.250 - 1269.500 MHz CW/LSB
L2-band: 1268.325 - 1268.575 MHz CW/LSB

Downlinks

S2-band: 2401.225 - 2401.475 MHz CW/USB
K-band: 24048.010 - 24048.060 MHz CW/USB
Beacon: 2401.323 MHz
24048.035 MHz

P3-D Telemetry Beacons (IHU)

BEACON General Beacon(GB) Middle Beacon(MB) Engineering Beacon(EB)
2 m none 145.898 MHz none
70cm 435.438 MHz 435.588 MHz 435.838 MHz
13cm(1) 2400.188 MHz 2400.338 MHz 2400.588 MHz
13cm(2) 2401.173 MHz 2401.323 MHz 2401.573 MHz
3cm 10450.975 MHz 10451.125 MHz 10451.375 MHz

1.5cm 24047.885 MHz 24048.035 MHz 24048.285 MHz
[07162007]
=====
OO-38 OPAL
Catalog Number: 26063
Launch Date: January 27, 2000

Status: Non-Operational

Mode U TLM Beacon
Downlink: 437.1000 MHz 9600 FSK
[08132007]
=====
UO-36 UoSAT-12
Catalog number: 25693
Launch date: April 21, 1999

Status: Unknown

Uplink: 145.960 MHz (9600-baud FSK)
Downlinks: 437.025 MHz
437.400 MHz

Broadcast Callsign: UO121-11
BBS: UO121-12

The VK5HI viewer shareware for UO-36 is available on the AMSAT-NA web
site at the following URL:
ftp://ftp.amsat.org/amsat/software/win32/display/ccddsp97-119.zip
[01222007]
=====
SO-35 SUNSAT
Catalog Number: 25636
Launch date:February 23, 1999

Status: Non-Operational

Downlink: Mode B Repeater: 436.291 MHz
Mode J Digipeater: 436.250 MHz

Uplinks: Mode B Repeater: 145.825 MHz
Mode J Digipeater: 145.825 MHz
145.900 MHz

For more information of SUNSAT vist the satellite web site:
http://esl.ee.sun.ac.za/projects/sunsat/
[01222007]
=====
PO-34 PANSAT
Catalog number: 25520
Launch date: October 30, 1998

Status: Telemetry downloads only

Uplink/downlink: 436.500 MHz

Official Webpage: http://www.sp.nps.navy.mil/pansat/
[05092004]
=====
SO-33 SEDSAT-1
Catalog number: 25509
Launch date: October 24, 1998

Status: Semi-operational

Downlink: 437.910 MHz FM (9600-baud FSK)

The satellite is not currently available for uplink transmissions and
the image and transponder recovery efforts have been unsuccessful.

For more information on SedSat-1 visit the satellite web site:
http://seds.uah.edu/projects/sedsat/sedsat.htm
[09042006]
=====
GO-32 Gurwin TechSat-1B
Catalog number: 25397
Launch Date: July 10, 1998

Status: Non-Operational

Current Modes:
Telemetry : /u

Downlink: 435.225 MHz FM (9600-baud FSK)
435.325 Mhz - Not Available - temperature problems
Uplinks: 145.850 FM
145.890 FM
145.930 FM
1269.700 FM
1269.800 FM
1269.900 FM

Broadcast Callsign: 4XTECH-11
BBS Callsign: 4XTECH-12

More information of GO-32 can be found at:
http://asri.technion.ac.il/techsat/

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=14&retURL
=/satellites/status.php
[07172010]
=====
TO-31 TMSAT-1
Catalog number: 25396
Launch Date: July 10, 1998

Status: Non-operational

Uplink: 145.925 MHz 9600 baud FSK
Downlink: 436.925 MHz 9600 baud FSK

Broadcast callsign: TMSAT1-11
BBS: TMSAT1-12
[05012006]
=====
MO-30 UNAMSAT-2
Catalog Number: 24305
Launch Date: September 5, 1996

Status: Non-operational

Downlink: 435.1380 MHz AFSK 1200 BPS
Downlink: 435.2060 MHz AFSK 1200 BPS
Uplink: 145.8150 MHz AFSK 1200 BPS
Uplink: 145.8350 MHz AFSK 1200 BPS
Uplink: 145.8550 MHz AFSK 1200 BPS
Uplink: 145.8750 MHz AFSK 1200 BPS
[06042009]
=====
PO-28 POSAT-1
Catalog number: 22829
Launch Date: September 25, 1993

Status: Non-operational

Downlink: 429.950
Uplink: Not until handover back to Amatuer usage

Broadcast callsign: POSAT1-11
BBS callsign: POSAT1-12

AMSAT Webpage: http://www.amsat.org/amsat/sats/n7hpr/po28.html
POSAT-1 webpage:
http://www.ee.surrey.ac.uk/SSC/CSER/UOSAT/missions/posat1.html
[01012009]
=====
AO-27 AMRAD
Catalog number: 22825
Launch Date: September 26, 1993 0140z
Launch site: Kourou, French Guiana

Status: Recovery efforts in progress

Current Mode: V/u

Uplink: 145.850 MHz FM
Downlink: 436.797 MHz FM

Mode and Antenna Polarization:
V: Linear
U: Linear

Official Webpage: http://www.ao27.org
[12032012]
=====
IO-26 ITAMSAT
Catalog number: 22826
Launch Date: September 26, 1993 0140z

Status: PSK carrier only

Current Mode:

Uplinks: 145.875 MHz FM 1200-baud
145.900 MHz FM 1200-baud
145.925 MHz FM 1200-baud
145.950 MHz FM 1200-baud

Downlink: 435.808 MHz PSK

Broadcast Callsign: ITMSAT-11
BBS: ITMSAT-12

Official webpage: http://www.itamsat.org
AMSAT Webpage: http://www.amsat.org/amsat/sats/n7hpr/io26.html
[01212007]
=====
KO-25 KITSAT
Catalog number: 22828
Launch date: September 26, 1993

Status: Non-operational

Uplink: 145.980 MHz FM 9600-baud FSK
Downlink: 436.500 MHz FM

Broadcast Callsign: HL02-11
BBS: HL02-12
[05092004]
=====
AO-24 ARSENE
Catalog Number: 22654
Launch Date: May 13, 1993

Status: Non-operational

Uplink: 435.0625 MHz FM 1k2bps AFSK
435.1125 MHz FM 1k2bps AFSK
435.1375 MHz FM 1k2bps AFSK
Downlink: 145.9750 MHz FM 1k2bps AFSK
2446.5025 MHz FM 1k2bps AFSK

Beacon: 2446.4700 MHz CW

Broadcast callsign:
BBS:
[12162009]

=====
KO-23 KITSAT
Catalog number: 22077
Launch date: August 10, 1992

Status: Non-operational

Uplink: 145.900 MHz FM (9600-baud FSK)
Downlink: 435.170 MHz FM

Broadcast Callsign: HLO1-11
BBS: HLO1-12
[01222007]
=====
UO-22 UOSAT
Catalog number: 21575
Launch date: July 17, 1991

Status: Non-Operational

Uplink: 145.900 FM 9600-baud FSK
Downlink: 435.120 MHz FM

Broadcast Callsign: UOSAT5-11
BBS: UOSAT5-12
[01222007]
=====
AO-21 AMSAT-OSCAR 21
Catalog Number: 21087
Launch Date: January 29, 1991

Status: Non-Operational

Uplink: 435.041 MHz FM DSP
Downlink: 145.983 MHz FM DSP
[01222007]
=====
FO-20 JAS-1b
Catalog number: 20480
Launch Date: February 07, 1990

Status: Non-Operational

Beacons: 435.795 MHz CW
435.910 MHz AX25

Voice Transponder:
Uplink: 145.900 to 146.000 MHz CW/LSB
Downlink: 435.800 to 435.900 MHz CW/USB

Digital Transponder:
Uplinks: 145.850 MHz
145.870 MHz
145.890 MHz

145.910 MHz
Downlink: 435.910 MHz

More FO-20 info can be found at:
http://www.amsat.org/amsat/sats/n7hpr/fo20.html
[01152007]
=====
WO-18 WEBERSAT
Catalog Number: 20441
Launch Date: January 22, 1990

Status: Non-Operational

Downlink: 437.104 MHz SSB 1200 Baud PSK AX.25
[05012006]
=====
DO-17 Dove
Catalog Number: 20440
Launch Date: January 22, 1990

Status: Non-operational.

Downlink: 145.825 MHz FM 1200 Baud AFSK
Beacon: 2401.220 MHz
[05012006]
=====
AO-16 PACSAT
Catalog number: 20439
Launch Date: January 22, 1990

Status: non-operational

Current Mode: V/u

Uplink: 145.900 MHz FM 1200-baud Manchester FSK (reserved)
145.920 MHz FM VOICE
145.940 MHz FM 1200-baud Manchester FSK (reserved)
145.960 MHz FM 1200-baud Manchester FSK (reserved)

Downlink: 437.026 MHz USB VOICE
(1200-baud PSK - MBL Telemetry Only)

Mode-S Beacon: 2401.1428 MHz [NO FUTURE OPERATIONS PLANNED]

Mode and Antenna Polarization:
U: RC 437.050 MHz RHCP
PSK 437.026 MHz LHCP
V: Linear

Broadcast Callsign: PACSAT-11
BBS: PACSAT-12

AO-16 AMSAT Webpage: http://www.amsat.org/amsat/sats/n7hpr/ao16.html
[07242009]

=====
UO-15 UoSAT-4
Catalog Number: 20438
Launch Date: January 22, 1990

Status: Non-operational

Uplink: ?
Downlink: 435.1250MHz (?)
435.1200MHz (?)
[06042009]
=====
UO-14 UoSAT-3
Catalog number: 20437
Launch date: January 22, 1990

Status: Non-operational

Uplink: 145.975 MHz FM
Downlink: 435.070 MHz FM
[05092004]
=====
FO-12 Fuji-OSCAR 12
Catalog Number: 16909
Launch Date: August 12, 1986

Status: Non-Operational

Mode V/U (J) Linear Transponder (Inverting):
Uplink: 145.9000 - 146.0000 MHz SSB/CW
Downlink 435.8000 - 435.9000 MHz SSB/CW

Mode V/U (J) Packet:
Uplink: 145.8500 MHz MFSK 1200 BPS
Uplink: 145.8700 MHz MFSK 1200 BPS
Uplink: 145.8900 MHz MFSK 1200 BPS
Uplink: 145.9100 MHz MFSK 1200 BPS

Downlink 435.9100 MHz PSK 1200 BPS

Telemetry Beacon: 435.7950 MHz SSB/CW
[01152007]
=====
AO-10 OSCAR 10
Catalog number: 14129
Launch Date: June 16, 1983

Status: Non-operational

Uplink: 435.030 to 435.180 MHz CW/LSB
Downlink: 145.975 to 145.825 MHz CW/USB

Beacon: 145.810 MHz (unmodulated carrier)

W4SM has more information about the satellite at the following URL:
http://www.cstone.net/~w4sm/AO-10.html
[05092004]
=====
AO-8 AMSAT-OSCAR 8
Catalog Number: 10703
Launch Date: March 3, 1978

Status: Non-Operational

Mode V/U (J) Linear Transponder (Non-Inverting): Non-Operational
Uplink: 145.9000 - 146.0000 MHz SSB/CW
Downlink 435.1990 - 435.2000 MHz SSB/CW

Mode V/U (J) TLM Beacon: Non-Operational
Downlink 435.0950 MHz CW

Mode V/A (A) Linear Transponder (Non-Inverting): Non-Operational
Uplink: 145.8500 - 145.9000 MHz SSB/CW
Downlink 29.4000 - 29.5000 MHz SSB/CW

Mode V/A (A) TLM Beacon: Non-Operational
Downlink 29.4020 MHz CW
[01152007]
=====
AO-6 AMSAT-OSCAR 6
Catalog Number: 06236
Launch Date: October 15, 1972

Status: Non-Operational

Uplink: 145.9000 - 146.0000 MHz SSB/CW
Downlink: 29.4500 - 29.5500 MHz SSB/CW
Beacons: 29.450 MHz
435.100 MHz
[01312008]
=====
AO-5 Australis-OSCAR 5
Catalog Number: 04321
Launch Date: January 23, 1970

Status: Non-Operational

Telemetry Beacons: 144.0500 MHz CW
29.4500 MHz CW
[01152007]
=====
OSCAR III
Catalog Number: 01293
Launch Date: March 09, 1965

Status: Non-Operational

Uplink: 145.9750 - 146.0250 MHz SSB/CW
Downlink: 144.3250 - 144.3750 MHz SSB/CW

[01012007]
=====
RS-15 RADIO SPORT RS-15
Catalog number: 23439
Launch Date: December 26, 1994

Status: Non-operational

Uplink: 145.858 to 145.898 MHz CW/USB
Downlink: 29.354 to 29.394 MHz CW/USB

Beacon 1: 29.352 MHz (intermittent)
Beacon 2: 29.398 MHz

SSB meeting frequency: 29.380 MHz (unofficial)
[06202004]
=====
RS-13 RADIO SPORT RS-13
Catalog number: 21089
Launch date: February 5, 1991

Status: Non-operational

Uplink: 21.260 to 21.300 MHz CW/USB
Downlink: 145.860 to 145.900 MHz CW/USB

Beacon: 145.860 MHz

Robot: 145.908 MHz
[05232004]
=====
RS-12 RADIO SPORT RS-12
Catalog number: 21089
Launch date: February 5, 1991

Status: Non-operational

Uplink: 21.210 to 21.250 MHz CW/USB
Downlink: 29.410 to 29.450 MHz CW/USB

Beacon: 29.408 MHz

Robot: 29.454 MHz
[05232004]
NNNN
/EX

ANS is released worldwide via the AMSAT ANS e-mail reflector and a
live
radiocast on the AMSAT-NA 20-meter net held each Sunday on 14.282 MHz.
Pre-net operations start at 18:00 UTC, with current ANS bulletins
trans-
mitted to the eastern U.S. at 19:00 UTC and to the western U.S. at
19:30

UTC.

Information on AMSAT-NA is available at the following URL:
http://www.amsat.org

Mailing address:
AMSAT-NA
850 Sligo Avenue, Suite 600
Silver Spring, Maryland 20910-4703

Voice: 301-589-6062
888-322-6728
FAX: 301-608-3410

Currently, AMSAT-NA supports the following (free) mailing lists:

* AMSAT News Service (ANS)
* General satellite discussion (AMSAT-BB)
* Orbit data (KEPS)
* Manned space missions (SAREX)
* District of Columbia area (AMSAT-DC)
* New England area (AMSAT-NE)
* AMSAT Educational Liaison mailing list (AMSAT-EDU)
* AMSAT K-12 Educational Liaison mailing list (AMSAT-K12)

A daily digest version is available for each list.

To subscribe, or for more list information, visit the following URL:
http://www.amsat.org/mailman/listinfo/ans

In addition to regular membership, AMSAT-NA offers membership in the President's Club. Members of the President's Club, as sustaining donors to AMSAT Project Funds, will be eligible to receive additional benefits. Application forms are available from the AMSAT-NA Office.

This week's Weekly Satellite Report Editor is James French, W8ISS.

ANS is always dedicated to past ANS editor 'BJ' Arts, WT0N, and to the memory of longtime AMSAT supporters Werner Haas, DJ5KQ, Dennis Kitchen, G0FCL and John Branegan GM4IHJ.

Please send any amateur satellite news or reports to: ans-editor{at}
amsat.org
NNNN
/EX

59. WSR-105 AMSAT Weekly Satellite Report

Newsgroup: rec.radio.amateur.space
Date: 2013-04-13 18:44:33 UTC
From: JoAnne Maenpaa <k9jkm@comcast.net>
Message-ID: <002801ce3876$9dc20e40$d9462ac0$@net>
Source record: 36
Cross-posted to: rec.radio.amateur.space,rec.radio.info

```
This report is organized into four (4) parts.
Part 1 (S1) - operational analog amateur satellites
Part 2 (S2) - operational digital amateur satellites
Part 3 (S3) - non - operational satellites
Part 4 (S4) - deborbited/returned satellites

SB SAT @ AMSAT W8ISS $WSR-105.S1
WSR 105 Part 1 04/15/2013

AMSAT NEWS SERVICE BULLETIN 105.S1
FROM AMSAT HQ SILVER SPRING, MD, April 15, 2013
TO ALL RADIO AMATEURS
BID: $WSR-105.S1

PW-Sat
Catalog Number: 38083
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: On Orbit

Uplink: 435.020 MHz FM
Downlink: 145.900 MHz DSB

Beacon:

Callsign:

URL:

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=132
[02112013]
=====
DO-64 Delfi-C3
Catalog number: 32789
Launch Date: April 28, 2008 0354z
Launch site: Satish Dhawan Space Centre, India

Status: Operational
Current Mode: Science Mode - Beacon ONLY

Telemetry: 145.870 MHz

Downlink: 145.880 to 145.920 MHz
Uplink: 435.530 to 435.570 MHz
```

Delfi-C3 web page: http://www.delfic3.nl/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=68
[02112013]
=====
VO-52 HAMSAT
Catalog number: 28650
Launch Date: May 05, 2005 0444z
Launch site: Satish Dhawan Space Centre, India

Status: Operational
Current Mode: U/v - Dutch Transponder

Frequencies:
Indian Transponder:
Uplink: 435.220 to 435.280 MHz LSB/CW
Downlink: 145.930 to 145.870 MHz USB/CW

Dutch Transponder:
Uplink: 435.225 to 435.275 MHz LSB/CW
Downlink: 145.925 to 145.875 MHz USB/CW

Indian Beacon: 145.9360 MHZ CW
Dutch Beacon: 145.860 MHz 12WPM with CW message

Mode and Antenna Polarization:
V: LHCP
U: RHCP

Official Webpage: http://www.amsatindia.org/hamsat.htm

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=30

To know what transponder is switched on please listen for the beacon
that is active. Each transponder has a different beacon.
[02112013]
=====
SO-50 SAUDISAT-1C
Catalog number: 27607
Launch date: December 20, 2002 1700z
Launch site: Baikonur, Kazakhstan

Status: Operational

Current Mode: V/u

Uplink: 145.850 MHz FM - 67.0 Hz PL tone
Downlink: 436.795 MHz

Mode and Antenna Polarization:
V: Linear
U: Linear

Official Webpage: http://saudisat.kacst.edu.sa/index.shtml
(not up and running currently)

To switch the transmitter on, you need to send a CTCSS tone of 74.4
Hz. The order of operation is thus: (allow for Doppler as necessary):
1) Transmit on 145.850 MHz with a tone of 74.4 Hz to arm the 10 minute
timer on board the spacecraft.
2) Now transmit on 145.850 MHz (FM Voice) using 67.0 Hz to PT the re-
peater on and off within the 10 Minute window.
3) Sending the 74.4 tone again within the 10 minute window will reset
the 10 minute timer.
[02112013]
=====
FO-29 JAS-2
Catalog number: 24278
Launch Date: August 17, 1996

Status: Operational
Current Mode: V/u (Mode JA)

Voice/CW (Mode JA)
Uplink: 145.90 to 146.00 MHz CW/LSB
Downlink: 435.80 to 435.90 MHz CW/USB
Beacon: 435.795 MHz

Digital Mode JD
Uplinks: 145.850 MHz FM
145.870 MHz FM
145.910 MHz FM
Downlink: 435.910 MHz 1200-baud BPSK or 9600-baud FSK
Callsign: 8J1JCS
Digitalker: 435.910 MHz

Mode and Antenna Polarization:
V: RHCP
U: RHCP

For current operational schedule for FO-29:
http://www.ne.jp/asahi/m-arai/gkz/satinfo/fo29e.htm

JARL English webpage:
http://www.jarl.or.jp/English/5_Fuji/ejasmenu.htm

AMSAT-NA Webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID
=5&retURL=/satellites/status.php

Mineo Wakita, JE9PEL, has created a simple decoder program for FO29's
CW telemetry downlink: http://www.ne.jp/asahi/hamradio/je9pel/
fo29cwts.htm
[02112013]
=====
AO-7 AMSAT OSCAR 7
Catalog number: 07530

Launch Date: November 15, 1974
Launch site: Vandenberg AFB, California, USA

Status: Operational

Current Mode: Alternating between Mode A and B every 24 hours

Uplink: 145.850 to 145.950 MHz CW/USB Mode A
432.125 to 432.175 MHz CW/LSB Mode B
Downlink: 29.400 to 29.500 MHz CW/USB Mode A (1W PEP)
145.975 to 145.925 MHz CW/USB Mode B (8W PEP)
145.975 to 145.925 MHz CW/USB Mode C (2W PEP)
Beacons: 29.502 MHz CW
145.972 MHz CW
435.100 MHz CW
2304.100 MHz CW

Official Webpage:
http://www.amsat.org/amsat-new/satellites/sat_summary/ao7.php
[02112013]
=====
INTERNATIONAL SPACE STATION (ISS) - ARISS
Catalog number: 25544
Launch date: November 20, 1998 0640z (ZARYA module)
Launch sites: Baikonur, Kazakhstan
Kourou, French Guiana
Uchinoura Space Center, Japan
Kennedy Space Center, Titusville, Florida, USA

Status: Operational

Current Active Modes: FM Repeater - OFF
Voice - V/v
BBS - V/v
2m APRS - V/v
2m Digi - V/v
70cm APRS - ?
70cm Digi - ?
SSTV - V/v

Expedition 35 Crew (March 2013 - September 2013):
Commander: Chris Hadfield KC5RNJ/VA3OOG
Flight Engineer: Tom Marshburn KE5HOC
Flight Engineer: Roman Romanenko
Flight Engineer: Aleksandr Misurkin
Flight Engineer: Pavell Vladimirovich RV3BS
Flight Engineer: Christopher Cassidy KF5KDR

Available Modes and Frequencies:
Digital/APRS:
Worldwide 2m packet uplink: 145.825 MHz FM 1k2
Worldwide 2m packet downlink: 145.825 Mhz FM 1k2
Worldwide 70cm packet uplink: 437.550 Mhz FM 1k2

Worldwide 70cm packet downlink: 437.550 Mhz FM 1k2

Voice:
Region 1 voice uplink: 145.200 MHz FM
Region 2/3 voice uplink: 144.490 MHz FM
Worldwide downlink: 145.800 MHz FM

Crossband Repeater:
Repeater Uplinks: 1269.650 MHz FM
437.800 MHz FM
145.990 MHz FM - 67.0 PL (Kenwood)
Repeater Downlink: 145.800 MHz FM
437.800 MHz FM (Kenwood)

SSTV Robot 36:
Downlink: 145.800 MHz FM

Mode and Antenna Polarization:
V: Linear
U: Linear

Callsigns:
Belgian: OR4ISS
German: DP0ISS
Russian: RS0ISS
RZ3DZR
United States: NA1SS
2m Packet Mailbox: RS0ISS-11
2m Digipeater alias: ARISS
70cm Packet Mailbox: RS0ISS-1
70cm Digipeater callsign: RS0ISS
70cm Digipeater alias: ARISS

Official ARISS Webpage: http://www.rac.ca/ariss
ISS Fan Club Webpage: http://www.issfanclub.com
APRS tracking page: http://www.ariss.net/

ISS Daily Crew Schedule: http://spaceflight.nasa.gov/station/timelines
Remember that the crew operates on UTC time. Also, all of the time
line is NOT translated from Russian and posted.
[04082013]
NNNN
/EX

SB SAT @ AMSAT W8ISS $WSR-105.S2
WSR 105 Part 2 04/15/2013

AMSAT NEWS SERVICE BULLETIN 105.S2
FROM AMSAT HQ SILVER SPRING, MD, April 15, 2013
TO ALL RADIO AMATEURS
BID: $WSR-105.S2

STRaND-1
Catalog Number:
Launch Date: February 25, 2013 12:31z
Launch Site: Satish Dhawan Space Centre, India

Status: Operational

Uplink:
Downlink:437.568MHz 9k6 FSK

Beacon: None(?)

Callsign:

URL: http://www.sstl.co.uk/Missions/STRaND-1--Launched-2013
[03042013]
=====
Fitsat-1
Catalog number: 38853
Launch Date: October 04, 2012
Launch site: Kibo Japanese Experiment Module, International Space
Station

Status: Operational

Uplink:
Downlink(s): 437.445MHz 1k2 AFSK
5840.00 MHz 115k2 data
LED CW (200w pulses)

Beacon(s): 437.250 MHz CW

Callsign: NIWAKA

URL: http://carpcomm.com/satellite/fitsat1
[10292012]
=====
TechEdSat
Catalog number: 38854
Launch date: October 04, 2012
Launch site: Kibo Japanese Experiment Module, International Space
Station

Uplink(s):
Downlink(s): 437.465 1k2 AFSK

Beacon(s):

Callsign:

URL:http://www.techedsat.com/
[10152012]
=====
We Wish
Catalog number: 38856
Launch date: October 04,2012

Launch Site: Kibo Japanese Experiment Module, International Space
Station

Uplink(s):
Downlink(s): 437.505MHz 1k2 AFSK
437.505MHz SSTV

Beacon(s): 437.505MHz CW

Callsign: JQ1ZIJ

URL:
[10152012]
=====
F-1
Catalog number: 38855
Launch Date: October 04, 2012
Launch Site: Kibo Japanese Experiment Module, International Space
Station

Uplink(s):
Downlink(s): 145.980MHz 1k2 AFSK
437.485MHz FM moduled CW

Baecon(s):

Callsign: XV1VN

URL: http://fspace.edu.vn/
[10152012]
=====
Aeneas
Catalog Number: 38760
Launch Date: September 13, 2012 2139z
Launch Site: Wallops Island, Virginia, USA

Status: On Orbit

Uplink: WiFi 2425MHz
Downlink:
WiFi: 2425MHz
Spread Spectrum: Somewhere in the 70cm band

Beacon: 437.600MHz 1k2 ax25 every 10 seconds

Callsign:

URL:
[10012012]
=====
CSSWE (Colorado Student Space Weather Experiment)
Catalog Number: 38761
Launch Date: September 12, 2012 2139z
Launch Site: Wallops Island, Virginia, USA

Status: On Orbit

Uplink:
Downlink: 437.345MHz 9k6 with ax.25

Beacon:

Callsign:

URL:
[10012012]
=====
CP5 (Polysat)
Catalog Number: 38763
Launch Date: September 12, 2012 2139z
Launch Site: Wallops Island, Virginia, USA

Status: On Orbit

Uplink:
Downlink: 437.405MHz AFSK on LSB ax.25 over NRZI at 1k2 baud,
every 2
minutes, begins 3.5 hours after first turn-on

Beacon:

Callsign:

URL:
[10012012]
=====
CXBN (Cosmic X-Ray Background Nanosatellite)
Catalog Number: 38762
Launch Date: September 12, 2012 2139z
Launch Site: Wallops Island, Virginia, USA

Status: On Orbit

Uplink:
Downlink: 437.525MHz GFSK ax.25

Beacon:

Callsign:

URL:
[10012012]
=====
Proiteres
Catalog Number: 38756
Launch Date: September 09, 2012 2139z
Launch Site: Satish Dhawan Space Centre, India

Status: On Orbit

Uplink:
Downlink: 437.485MHz FM/AFSK

Beacon:

Callsign: JL3YZK

URL:
[10012012]
=====
RS-40 MiR (Yubileiny-2)
Catalog Number: 38735
Launch Date: July 28, 2012
Launch Site: Plesetsk Missile and Space Complex, Russia

Status: On Orbit

Uplink:
Downlink(s): 435.265 MHz
435.365 MHz

Beacon:

Callsign:

URL:
[08272012]
=====
HORYU-II
Catalog number: 38340
Launch Date: May 17, 2012 1639z

Status: On Orbit

Uplink: 145.??? MHz
Downlink: 437.375 MHz CW/AX25/FSK

Beacon: 437.375 MHz CW

Callsign: JG6YBW

URL:

IARU Coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=216
[10012012]
=====
XaTcobeo
Catalog Number: 38082
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: Operational

Uplink:
Downlink: 437.365 MHz FFSK with AX.25

Beacon:

Callsign:

URL:

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=135
[100162012]
=====
UniCubeSat
Catalog Number: 38085(?)
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: Operational

Uplink:
Downlink: 437.305 MHz 9k6 bps GMSK

Beacon:

Callsign:

URL:
http://www.gaussteam.com/index.php?option=com_content&view=article&id=
96:unicu
besat&catid=36:unicubesat&Itemid=183

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=133
[10012012]
=====
Robusta
Catalog Number: 38083(?)
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: On Orbit

Uplink:
Downlink: 437.325 MHz 1k2 FM telemetry (data every 3 min, 20 sec.
burst)

Beacon:

Callsign:

URL:

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=122
[10012012]
=====
MO-72 MaSat-1
Catalog Number: 38081

Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: Operational

Uplink:
Downlink: 437.345 MHz GFSK 625/1250 bps
437.345 MHz CW

Beacon:

Callsign:

URL:

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=126
[10012012]
=====
Goliat
Catalog Number: 38084(?)
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: Operational

Uplink:
Downlink: 437.485 MHz 1k2 AFSK

Beacon:

Callsign:

URL:

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=98
[10012012]
=====
E-St@r
Catalog Number: 38079
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: On Orbit

Uplink:
Downlink: 437.445 MHz 1k2 bps AFSK

Beacon:

Callsign:

URL:

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=130
[10012012]
=====
ALMASat-1
Catalog Number: 38078
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: On Orbit

Uplink:
Downlink: 437.465 MHz 1k2 bps FSK
2407.850 MHz

Beacon:

Callsign:

URL:

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=39
[10012012]
=====
RS-39 Chibis-M
Catalog Number: 38051
Launch Date: October 30, 2011 10:11:00 UTC
Launch site: Tyuratam (Baikonur Cosmodrome), Kazakhstan

Status: Operational

Uplink:
Downlink:

Beacon: 435.315 MHz CW
435.215 MHz CW

Callsign:

URL:

IARU coordination status page:
[07302012]
=====
JUGNU
Catalog Number: 37839
Launch Date: October 12, 2011 05:30:00 UTC
Launch site: Satish Dhawan Space Centre, India

Status: On Orbit

Uplink: 145.??? MHz 1k2 (mode?)
Downlink: 437.505 MHz 9k6 (mode?)

Beacon: 437.275 MHz 15 wpm (?) CW

Callsign:

URL: http://www.iitk.ac.in/me/jugnu/index.htm

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=160
[07092012]
=====
SRMSAT
Catalog Number: 37841
Launch Date: October 12, 2011 05:30:00 UTC
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Uplink: 145.900 MHz 1k AX.25 (speed?)
Downlink: 437.500 MHz 2k4 AX.25

Beacon: 437.425 MHz 12 wpm CW

Callsign:

URL: http://srmsat.in/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=181
[01282013]
=====
HRBE (E1P Explorer 1 [Prime] CubeSat (E1P-U2))
Catalog Number: 37855
Launch Date: October 28, 2011
Launch site: Vandenberg Air Force Base, California, USA

Status: On Orbit

Uplink: 437.305 MHz (???)
Downlink: 437.505 MHz AX.25 (SSB?)

Beacon:

Callsign:

URL: http://ssel.montana.edu/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=116
[01122012]
=====
M-Cubed
Catalog Number: 37855
Launch Date: October 28, 2011
Launch site: Vandenberg Air Force Base, California, USA

Status: On Orbit

Uplink:
Downlink: 437.485 MHz AX.25

Beacon:

Callsign:

URL: http://umcubed.org/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=215
[01122012]
=====
RAX-2
Catalog Number: 37853
Launch Date: October 28, 2011
Launch site: Vandenberg Air Force Base, California, USA

Status: Operational

Uplink:
Downlink: 437.345MHz 9k6 GMSK

Beacon:

Callsign:

URL: http://rax.engin.umich.edu//

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=221
[03232012]
=====
AO-71 AubieSat-1
Catalog Number: 37854
Launch Date: October 28, 2011
Launch site: Vandenberg Air Force Base, California, USA

Status: On Orbit

Uplink:
Downlink: 437.475 MHz 1k2 AX.25

Beacon: 437.475 MHz CW

Callsign: KI4NQO

URL: http://www.space.auburn.edu/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=148
[12262011]
=====
O/OREOS
Catalog Number: 37224
Launch Date: November 20, 2010

Launch site: Kodiak Launch Complex, Alaska, USA

Status: On Orbit

Uplink:
Downlink: 437.035 MHZ AX.25

Beacon:

Callsign:

URL: http://www.ooreos.org/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=146
[02092011]
=====
Rax-1 Radio Aurora Explorer
Catalog Number: 37223
Launch Date: November 20, 2010
Launch site: Kodiak Launch Complex, Alaska, USA

Status: On Orbit

Uplink:
Downlink: 437.505 MHz 9k6 GMSK

Beacon:

Callsign: RAX-1

URL: http://rax.engin.umich.edu/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=165
[02092011]
=====
FO-69 Fastrac-1 Sara Lily
Catalog Number: 37227
Launch Date: November 20, 2010
Launch site: Kodiak Launch Complex, Alaska, USA

Status: Operational

Uplink 1: 145.980 MHz 1k2 baud
Uplink 2: 145.825 MHz 1k2 baud
Downlink: 437.345 MHz 1k2 and 9k6 baud

Beacon: 437.435 MHz 1k2 AX.25

Callsign: Fast1

URL: http://fastrac.ae.utexas.edu/index.php

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=83

[07052011]
=====
FO-70 Fastrac-2 Emma
Catalog Number: 37380
Launch Date: November 20, 2010
Launch site: Kodiak Launch Complex, Alaska, USA

Status: Operational

Uplink 1: 435.025 MHz 1k2 baud
Uplink 2: 437.435 MHz 9k6 baud
Downlink: 145.825 MHz 1k2 and 9k6 baud

Beacon: 145.825 MHz 1k2 AX.25

Callsign: Fast2

URL: http://fastrac.ae.utexas.edu/index.php

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=84
[12162011]
=====
StudSat
Catalog Number: 36796
Launch Date: July 12, 2010 0352z
Launch site: Satish Dhawan Space Centre, India

Status: On Orbit

Uplink: 437.505MHz, 9600bps FSK
Downlink: 437.505MHz, 9600bps FSK
Beacon : 437.505MHz, 20bps ASK

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=164
[02092011]
=====
TIsat-1
Catalog Number: 36799
Launch Date: July 12, 2010 0352z
Launch site: Satish Dhawan Space Centre, India

Status: On orbit

Callsign: HB9DE

Uplink: 145.980MHz FM, AFSK
Downlink: 437.305MHz FM, AFSK
Beacon: 437.305MHz CW

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=118
[02092011]

=====
SwissCube
Catalog Number: 35932
Launch Date: September 23, 2009 0621z
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Callsign: HB9EG

Beacon(100mw): 437.5050MHz CW
Beacon(1w): 437.5050MHz FSK 1k2bps

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=109
[02092011]
=====
UWE-2
Catalog Number: 35934
Launch Date: September 23, 2009 0621z
Launch site: Satish Dhawan Space Centre, India

Status: In Orbit

Beacon(500mw): 437.3850 MHz AFSK 1k2bps
437.3850 MHz FSK 9k6bps

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=110
[02092011]
=====
ITUpsAT1
Catalog Number: 35935
Launch Date: September 23, 2009 0621z
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Beacon(100mw): 437.325MHz CW
Beacon(1w): 437.325MHz 19k2bps

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=113
[02092011]
=====
BEESAT
Catalog Number: 35933
Launch Date: September 23, 2009 0621z
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Callsign: DP0BEE

Beacon(100mw): 436.000MHz CW
Beacon(500mw): 436.000MHz GMSK 4k8bps
Beacon(500mw): 436.000MHz GMSK 9k6bp
[02092011]
=====
SOHLA-1 (ASTRO TECH.)
Catalog Number: 33496
Launch Date: January 23, 2009 0354z
Launch site: Tanegashima Space Center, Japan

Status: Operational

Proposed Frequencies and Modes:
Downlink: 437.505 MHz AFSK/CW
Beacon: 437.505 MHz AFSK/CW

Callsign:

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=101
[02092011]
=====
KAGAYAKI (Solan Co.)
Catalog Number: 33495
Launch Date: January 23, 2009 0354z
Launch site: Tanegashima Space Center, Japan

Status: In Orbit

Downlink: 437.375 MHZ FSK9k6/CW
Beacon: 437.375 MHz FSK9k6/CW

IARU coordination status page:

AMSAT-NA webpage:

[02092011]
=====
STARS (Kagawa Univ.) (Twin Satellites)
Catalog Number: 33498
Launch Date: January 23, 2009 0354z
Launch site: Tanegashima Space Center, Japan

Status: Operational ?

Downlinks: 437.485 MHz FM/CW
437.465 MHz FM/CW
Beacons: 437.305 MHz FM/CW
437.275 MHz FM/CW

Callsigns: JR5YBN
JR5YBO

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=99

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=121&retURL
=/satellites/status.php
[02092011]
=====
KKS-1 (Tokyo MCIT)
Catalog Number: 33499
Launch Date: January 23, 2009 0354z
Launch site: Tanegashima Space Center, Japan

Status: Operational

Downlink: 437.455 MHz AFSK/CW
Beacon: 437.385 MHz AFSK/CW

Callsign: JQ1YYY

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=107

AMSAT-NA webapge:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=120&retURL
=/satellites/status.php
[20092011]
=====
PRISM (Tokyo Univ.)
Catalog Number: 33493
Launch Date: January 23, 2009 0354z
Launch site: Tanegashima Space Center, Japan

Status: Operational

Uplink: 145.xxx MHz AFSK 1k2
Downlink: 437.425 MHz AFSK 1k2
Beacon: 437.250 MHz CW

Callsign: JQ1YCX

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=97

Read terms and conditions of operations at the PRISM web page to find
out how
to properly operate on the satellite and to get the uplink frequency.
It
has
been asked that the uplink frequency not be given out untik you have
read and
understood the terms of usage.

URL:
http://www.space.t.u-tokyo.ac.jp/prism/en/HAMservice.html
[10282012]
=====
RS-30 Radio Sputnik 30 (Yubileiny)

Catalog Number: 32953
Launch Date: May 23, 2008 1520z
Launch site: Plesetsk Missile and Space Complex, Russia

Status: Operational

Curent Modes: Telemetry
Audio
Images

Downlinks: 435.315 MHz
435.215 MHz

AMSAT-NA website:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=115&ret
URL=/satellites/status.php

Official website:
http://www.npopm.com/?cid=leoca&caid=43
[02092011]
=====
CanX-2
Catalog number: 32790
Launch Date: April 28, 2008 0354z
Launch site: Satish Dhawan Space Centre, India

Status: Operational in range of ground station only

Downlink: 437.478 MHz GFSK

For the latest project status update please visit the Can X-2 web
page: http://www.utias-sfl.net/nanosatellites/CanX2/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=46
[02092011]
=====
AAUSAT-II
Catalog number: 32788
Launch Date: April 28, 2008 0354z
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Downlink: 437.425 MHz 1k2 baud packet

For the latest project status update please visit the AAUSAT-II web
page:
http://www.aausatii.aau.dk/homepage/index.php?language=en&page=home

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=60
[02092011]
=====

CO-65 CUTE-1.7+APD II
Catalog number: 32785
Launch Date: April 28, 2008 0354z
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Downlink: 437.475 MHz 9k6 Packet
Uplink: 1267.600 Mhz

Telemetry Beacon:
Downlink: 437.2750 MHz CW

For the latest project status update please visit the Cute-1.7+APD II
web page: http://lss.mes.titech.ac.jp/ssp/cute1.7/index_e.html

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=78

Command Station blog website:
http://lss.mes.titech.ac.jp/ssp/cute1.7/blog/

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=112&retURL
=/satellites/status.php
[03232012]
=====
Compass-1
Catalog number: 32787
Launch Date: April 28, 2008 0354z
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Current Mode: dependant on last received command

Uplink: 145.980 MHz FM
Downlink: 437.275 Mhz CW
437.405 MHz Packet

For the latest project status update please visit the Compass 1 web
page: http://www.raumfahrt.fh-aachen.de/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=52

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=114&retURL
=/satellites/status.php
[06162011]
=====
CO-66 Seeds II
Catalog number: 32791
Launch Date: April 28, 2008 0354z

Launch site: Satish Dhawan Space Centre, India

Status: Operational

Downlink: 437.485 MHz

Callsign: JQ1YGU

For the latest project status update please visit the Seeds 2 web
page: http://cubesat.aero.cst.nihon-u.ac.jp/english/seeds_2_e.html

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=36

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=113&retURL
=/satellites/status.php
[073092011]
=====
CAPE-1
Catalog Number: 31130
Launch Date: April 17,2007 0702z
Launch site: Baikonur, Kazakhstan

Status: Intermittent

Current Mode: /u

TLM Downlink: 435.245 MHz 9600 bs FSK AX.25
CW Beacon: 435.245 MHz CW

Callsign: K5USL

TLM and CW interchange every 30 seconds.

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=94&retURL=
/satellites/status.php

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=72
[02092011]
=====
CP3
Catalog Number: 31129
Launch Date: April 17,2007 0702z
Launch site: Baikonur, Kazakhstan

Status: Operational

Current Mode: /u

Downlink: 436.845 MHz 1200 bps AFSK AX.25

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=74

[02092011]
=====
CO-58 CubeSat XI-V
Catalog number: 28895
Launch Date: October 27, 2005 0652z
Launch site: Plesetsk Missile and Space Complex, Russia

Status: Operational - CW Beacon only

Current Mode: /u

Telemetry Downlink: 437.4250 MHz AFSK 1200bps using AFK protocol
Beacon: 437.2750 MHz CW

Callsign: JQ1YGW

Official Webpage: http://www.space.t.u-tokyo.ac.jp/cubesat/mission/V/

Pictures received by Mineo Wakita - JE9PEL:
http://www.ne.jp/asahi/hamradio/je9pel/xivpicte.htm

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=37
[02092011]
=====
CO-57 CubeSat XI-IV
Catalog number: 27848
Launch date: June 30, 2003 1415z
Launch site: Plesetsk Missile and Space Complex, Russia

Status: ?????

Current Mode: /u

Beacon: 436.8475 MHz CW
Telemetry : 437.4900 MHz AFSK 1200 BPS

Callsign: JQ1YGW

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=96&retURL
=/satellites/status.php

Official Webpage: http://www.space.t.u-tokyo.ac.jp/cubesat/mission/V/
[02092011]
=====
QuakeSat
Catalog Number: 27845
Launch Date: June 30, 2003 1415z
Launch site: Plesetsk Missile and Space Complex, Russia

Status: Telemetry only

Current Mode: 9600 baud data packet

Mode U packet
Downlink: 436.675 MHz 9k6 BPS

Quakesat webpage:
http://www.quakefinder.com/services/quakesat-ssite/
[02252011]
=====
CO-55 Cute-1.7+APD II
Catalog Number: 27844
Launch date: June 30, 2003 1415z
Launch site: Plesetsk Missile and Space Complex, Russia

Status: Operational

Current Mode: CW downlink worldwide
AX25 Packet with uplink command over Japan only

Mode U Telemetry
Downlink: 437.4000 MHz AFSK 1200 BPS

Mode U TLM Beacon
Downlink: 436.8375 MHz CW

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=69&retURL
=/satellites/status.php

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=78
[02092011]
=====
NO-44 PCSAT
Catalog number: 26931
Launch Date: September 30, 2001 0240z
Launch site: Kodiak Launch Complex, Alaska, USA

Status: Operational

Current Mode: V/v

General Usage Uplink/Downlink: 145.827 MHz 1200 Baud
Special Usage Downlink: 144.390 Mhz 1200 Baud

PCSAT APRS page: http://pcsat.aprs.org

aprstlm Telemetry Decoder program:
http://www.xciv.org/~iain/aprstlm/v1.2/
[10292012]
=====
RS-22 RADIO SPORT 22 (MOZHAYETS 4)
Catalog number: 27939
Launch Date: September 27, 2003 0612z
Launch site: Plesetsk Missile and Space Complex, Russia

Status: Operational - 70cm cw only

Current Mode: /u

CW Beacon - 435.352 MHz
145.818 MHz

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=76&retURL
=/satellites/status.php
[02092011]
=====
LO-19 LUSAT
Catalog number: 20442
Launch date: January 22, 1990
Launch site: Kourou, French Guiana

Status: CW Beacon only

Uplinks: 145.840 MHz 1200-baud Manchester FSK
145.860 MHz 1200-baud Manchester FSK
145.880 MHz 1200-baud Manchester FSK
145.900 MHz 1200-baud Manchester FSK

CW downlink: 437.125 MHz

Digital downlink: 437.150 MHz SSB (RC-BPSK 1200-baud PSK)

Broadcast Callsign: LUSAT-11
BBS: LUSAT-12

General information and telemetry samples can be found at:
www.telecable.es/personales/ea1bcu
[02092011]
=====
UO-11 OSCAR-11
Catalog number: 14781
Launch Date: March 1, 1984
Launch site: Vandenburg AFB, California, USA

Status: Operational ?

Current Mode: /v

Telemetry Downlink: 145.825 MHz FM 1200 AFSK
UHFBeacon: 435.025 MHz
Mode-S Beacon: 2401.500 MHz

Mode and Antenna Polarization:
V: RHCP
S: LHCP

Webpage: http://www.users.zetnet.co.uk/clivew/
MPEG3 files: http://www.ne.jp/asahi/hamradio/je9pel/uo11tlme.htm
[07052011]
=====
INTERNATIONAL SPACE STATION (ISS) - ARISS

Catalog number: 25544
Launch date: November 20, 1998 0640z (ZARYA module)
Launch sites: Baikonur, Kazakhstan
Kourou, French Guiana
Uchinoura Space Center, Japan
Kennedy Space Center, Titusville, Florida, USA

Status: Operational

Current Active Modes: FM Repeater - OFF
Voice - V/v
BBS - V/v
2m APRS - V/v
2m Digi - V/v
70cm APRS - ?
70cm Digi - ?
SSTV - V/v

Expedition 35 Crew (March 2013 - September 2013):
Commander: Chris Hadfield KC5RNJ/VA3OOG
Flight Engineer: Tom Marshburn KE5HOC
Flight Engineer: Roman Romanenko
Flight Engineer: Aleksandr Misurkin
Flight Engineer: Pavell Vladimirovich RV3BS
Flight Engineer: Christopher Cassidy KF5KDR

Available Modes and Frequencies:
Digital/APRS:
Worldwide 2m packet uplink: 145.825 MHz FM 1k2
Worldwide 2m packet downlink: 145.825 Mhz FM 1k2
Worldwide 70cm packet uplink: 437.550 Mhz FM 1k2
Worldwide 70cm packet downlink: 437.550 Mhz FM 1k2

Voice:
Region 1 voice uplink: 145.200 MHz FM
Region 2/3 voice uplink: 144.490 MHz FM
Worldwide downlink: 145.800 MHz FM

Crossband Repeater:
Repeater Uplinks: 1269.650 MHz FM
437.800 MHz FM
145.990 MHz FM - 67.0 PL (Kenwood)
Repeater Downlink: 145.800 MHz FM
437.800 MHz FM (Kenwood)

SSTV Robot 36:
Downlink: 145.800 MHz FM

Mode and Antenna Polarization:
V: Linear
U: Linear

Callsigns:
Belgian: OR4ISS
German: DP0ISS
Russian: RS0ISS
RZ3DZR
United States: NA1SS
2m Packet Mailbox: RS0ISS-11
2m Digipeater alias: ARISS
70cm Packet Mailbox: RS0ISS-1
70cm Digipeater callsign: RS0ISS
70cm Digipeater alias: ARISS

Official ARISS Webpage: http://www.rac.ca/ariss
ISS Fan Club Webpage: http://www.issfanclub.com
APRS tracking page: http://www.ariss.net/

ISS Daily Crew Schedule: http://spaceflight.nasa.gov/station/timelines
Remember that the crew operates on UTC time. Also, all of the time
line is NOT translated from Russian and posted.
[04082013]
NNNN
/EX

SB SAT @ AMSAT W8ISS $WSR-105.S3
WSR 105 Part 3 03/15/2013

AMSAT NEWS SERVICE BULLETIN 105.S3
FROM AMSAT HQ SILVER SPRING, MD, April 15, 2013
TO ALL RADIO AMATEURS
BID: $WSR-105.S3

THE FOLLOWING ARE IN ORBIT BUT ARE NON-OPERATIONAL AT THIS TIME:

NANOSAIL-D
Catalog Number: 37361
Ejection Date: January 17, 2011

Status: Non - Operational

Downlink: 437.270 MHz AX.25

URL: http://nanosaild.engr.scu.edu/dashboard.htm

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=115
[07302012]
=====
HO-68 HOPE-1 (CAS-1) (XW-1)
Catalog Number: 36122
Launch Date: December 15, 2009 0231z
Launch site: Taiyuan Space Center, PRC

Status: Telemetry only

Callsign:
Broadcast: BJ1SA-11
BBS: BJ1SA-12

Uplinks: 145.8250 MHz FM, PL 67.0 Hz.
145.9250 - 145.9750 MHz SSB/CW
145.8250 MHz AFSK 1200 BPS
Downlinks: 435.6750 MHz FM
435.7650 - 435.7150 MHz SSB/CW
435.6750 MHz AFSK 1200 BPS

Beacon: 435.7900 MHz CW

Mode and Antenna Polarization:
V: LHCP 2.0dBi max
U: RHCP 3.0dBi max

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=108

For more information about XW-1 (CAS-1):
http://
[04302012]
=====
SO-67 SumbandilaSat
Catalog Number: 35870
Launch Date: September 17, 2009 1555z
Launch site: Baikonur, Kazakhstan

Status: Non - Operational

Callsign: ZS0SUM

Uplink: 145.875MHz FM tone 233.6 Hz
Downlink: 435.345MHz FM

Mode and Antenna Polarization:
V: Linear
U: Linear

For more information about SO-67:
http://www.amsatsa.org.za/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=88
[01272012]
=====
CP4
Catalog Number: 31132
Launch Date: April 17, 2007

Status: Non-Operational

Current Mode: /u

TLM Downlink: 437.325 MHz 1200 bps FSK AX.25
CW Beacon: 437.325 MHz CW

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=79
[09062010]
=====
LIBERTAD-1
Catalog Number: 31128
Launch Date: April 17, 2007

Status: Non-Operational

Current Mode: V/u APRS Packet ax25

Callsign: 5K3L

Uplink: 145.825 MHz 1200 AFSK ax25 APRS
Downlink: 437.399 MHz 1200 AFSK ax25 APRS

Telemetry Beacon: 437.4050 MHz 1200 AFSK ax25

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=76
[09062010]
=====
PO-63 PEHUENSAT-1
Catalog Number: 29712
Launch Date: January 10, 2007

Status: Non-Operational

Current Mode: V/v

Uplink/Downlink: 145.825 Mhz FM
Voice Recorder: 145.825 Mhz FM

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=51
[09062010]
=====
NCUBE-2
Catalog number: 28897
Launch Date: October 27, 2005

Status: Still attached to XO-53 (SSETI)?

Proposed Callsign: TBA
Proposed Transmit Frequency: 437.305
2407.250

Official Website: http://www.ncube.no

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=24
[09062010]

=====
XO-53 SSETI
Catalog number: 28894
Launch Date: October 27, 2005

Status: Non-operational

Voice Uplink: 437.250 MHz FM 67Hz CTCSS
Voice Downlink: 2401.835 MHz FM
Packet Up/Downlink: 437.250 MHz 9k6 packet
Packet Downlink 2401.835 MHz 38k4 packet

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=54
[09062010]
=====
UWE-1
Catalog Number: 28892
Launch Date: October 27, 2005

Status: Non-Operational

Mode U Telemetry
Downlink: 437.5050 MHz 9600 AFSK

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=53
[09062010]
=====
AO-51 ECHO
Catalog number: 28375
Launch date: June 29, 2004 0745z
Launch site: Baikonur, Kazakhstan

Status: Non - Operational

Current Mode(s):
Voice repeater: V/u
Uplink: 145.880 MHz FM
Downlink: 435.150 MHz FM

Telemetry: Recovery efforts
Downlink: 435.150MHz 9k6

Analog voice downlink: 435.300 MHz FM
435.150 MHz FM
2401.200 Mhz FM
Analog voice uplink: 145.860 MHZ FM
145.880 MHz USB
145.880 MHz FM
145.920 MHz FM
145.920 MHz FM - 67 Hz PL tone burst
1268.705 MHz FM

Digital Downlinks: 435.150 MHz FM 38k4 PBP, 1 watt output
435.150 MHz FM 9k6 Pacsat Broadcast
Protocol
2401.200 MHz FM 38k4 bps, AX.25
Digital Uplink: 145.860 MHz FM 9k6 Pacsat Broadcast
Protocol
1268.703 mhz FM 9k6 Pacsat Broadcast
Protocol
Beacon: 435.150 MHz

Mode and Antenna Polarization:
T: Linear
V: Linear
U: TX A (usually digital)LHCP
TX B (usually analog) RHCP
L: Linear
S: Linear

Broadcast: PECHO-11
BBS: PECHO-12

Official Webpage: http://www.amsat.org/amsat-new/echo/CTNews.php

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=19
[12062011]
=====
CANX-1
Catalog Number: 27847
Launch Date: June 30, 2003

Status: Non-Operational

Downlink: 437.8800 MHz AFSK 1k2bps
[06052009]
=====
DTUSAT
Catalog Number: 27842
Launch Date: June 30, 2003

Status: Non-Operational

Current Mode: 2k4 AFSK Packet last reported

Downlink: 437.475MHz

Officail webpage: http://dtusat1.dtusat.dtu.dk/

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=101&retURL
=satellites/all_oscars.php
[02212009]
=====
AO-49 AATiS OSCAR-49 (SAFIR-M)

Catalog number: 27605
Launch Date: December 20, 2002

Status: Non-operational.

Uplink: 435.275 MHz 1200-baud AFSK
Downlink: 145.825 MHz 9600-baud FSK
(optional voice message)

Broadcast callsign: DP0AIS

Official webpage: http://amend.gmxhome.de
[01222007]
=====
MO-46 TIUNGSAT-1
Catalog number: 26548
Launch date: September 26, 2000

Status: Telemetry only

Uplinks: 145.850 MHz
145.925 MHz 9600-baud FSK
Downlink: 437.325 MHz

Broadcast callsign: MYSAT3-11
BBS: MYSAT3-12

TiungSat-1 is Malaysia's first micro-satellite and in addition to
commercial land and weather imaging payloads offers FM and FSK
Amateur Radio communication.

TiungSat-1, named after the mynah bird of Malaysia, was developed as
a collaborative effort between the Malaysian government and Surrey
Satellite Technology Ltd.
[03302009]
=====
NO-45 SAPPHIRE
Catalog number: 26932
Launch Date: September 30, 2001

Status: Non-Operational

Downlink: 437.095 MHz 1200 baud AX-25 AFSK
Uplink: 145.945 MHz UI Digipeater
Digi Callsign: KE6QMD

Everyone is welcome to use the digipeating/APRS features of Sapphire,
as per the user service agreement located at the following URL:
http://web.usna.navy.mil/~bruninga/pcsat/contract.txt
[03132005]
=====
SO-42 SAUDISAT-1B
Catalog number: 26549
Launch date: September 26, 2000

Status: Non-Operational

Downlink: 437.075 MHz

Broadcast Callsign: SASAT2-11
BBS: SASAT2-12

Further information is available at:
http://www.amsat.org/amsat/sats/n7hpr/so42.html
[01222007]
=====
SO-41 SAUDISAT-1A
Catalog number: 26545
Launch Date: September 26, 2000

Status: Non-Operational

Uplink: 145.850 MHz
Downlink: 436.775 MHz

Broadcast Callsign: SASAT1-11
BBS: SASAT1-12

Further information is available at:
http://www.amsat.org/amsat/sats/n7hpr/so41.html
[01222007]
=====
AO-40 AMSAT OSCAR 40
Catalog number: 26609
Launch Date: November 16, 2000

Status: Non-Operational

Uplinks

V-band: 145.840 - 145.990 MHz CW/LSB
U-band: 435.550 - 435.800 MHz CW/LSB
L1-band: 1269.250 - 1269.500 MHz CW/LSB
L2-band: 1268.325 - 1268.575 MHz CW/LSB

Downlinks

S2-band: 2401.225 - 2401.475 MHz CW/USB
K-band: 24048.010 - 24048.060 MHz CW/USB
Beacon: 2401.323 MHz
24048.035 MHz

P3-D Telemetry Beacons (IHU)

BEACON General Beacon(GB) Middle Beacon(MB) Engineering Beacon(EB)
2 m none 145.898 MHz none
70cm 435.438 MHz 435.588 MHz 435.838 MHz
13cm(1) 2400.188 MHz 2400.338 MHz 2400.588 MHz
13cm(2) 2401.173 MHz 2401.323 MHz 2401.573 MHz
3cm 10450.975 MHz 10451.125 MHz 10451.375 MHz

1.5cm 24047.885 MHz 24048.035 MHz 24048.285 MHz
[07162007]
=====
OO-38 OPAL
Catalog Number: 26063
Launch Date: January 27, 2000

Status: Non-Operational

Mode U TLM Beacon
Downlink: 437.1000 MHz 9600 FSK
[08132007]
=====
UO-36 UoSAT-12
Catalog number: 25693
Launch date: April 21, 1999

Status: Unknown

Uplink: 145.960 MHz (9600-baud FSK)
Downlinks: 437.025 MHz
437.400 MHz

Broadcast Callsign: UO121-11
BBS: UO121-12

The VK5HI viewer shareware for UO-36 is available on the AMSAT-NA web
site at the following URL:
ftp://ftp.amsat.org/amsat/software/win32/display/ccddsp97-119.zip
[01222007]
=====
SO-35 SUNSAT
Catalog Number: 25636
Launch date:February 23, 1999

Status: Non-Operational

Downlink: Mode B Repeater: 436.291 MHz
Mode J Digipeater: 436.250 MHz

Uplinks: Mode B Repeater: 145.825 MHz
Mode J Digipeater: 145.825 MHz
145.900 MHz

For more information of SUNSAT vist the satellite web site:
http://esl.ee.sun.ac.za/projects/sunsat/
[01222007]
=====
PO-34 PANSAT
Catalog number: 25520
Launch date: October 30, 1998

Status: Telemetry downloads only

Uplink/downlink: 436.500 MHz

Official Webpage: http://www.sp.nps.navy.mil/pansat/
[05092004]
=====
SO-33 SEDSAT-1
Catalog number: 25509
Launch date: October 24, 1998

Status: Semi-operational

Downlink: 437.910 MHz FM (9600-baud FSK)

The satellite is not currently available for uplink transmissions and
the image and transponder recovery efforts have been unsuccessful.

For more information on SedSat-1 visit the satellite web site:
http://seds.uah.edu/projects/sedsat/sedsat.htm
[09042006]
=====
GO-32 Gurwin TechSat-1B
Catalog number: 25397
Launch Date: July 10, 1998

Status: Non-Operational

Current Modes:
Telemetry : /u

Downlink: 435.225 MHz FM (9600-baud FSK)
435.325 Mhz - Not Available - temperature problems
Uplinks: 145.850 FM
145.890 FM
145.930 FM
1269.700 FM
1269.800 FM
1269.900 FM

Broadcast Callsign: 4XTECH-11
BBS Callsign: 4XTECH-12

More information of GO-32 can be found at:
http://asri.technion.ac.il/techsat/

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=14&retURL
=/satellites/status.php
[07172010]
=====
TO-31 TMSAT-1
Catalog number: 25396
Launch Date: July 10, 1998

Status: Non-operational

Uplink: 145.925 MHz 9600 baud FSK
Downlink: 436.925 MHz 9600 baud FSK

Broadcast callsign: TMSAT1-11
BBS: TMSAT1-12
[05012006]
=====
MO-30 UNAMSAT-2
Catalog Number: 24305
Launch Date: September 5, 1996

Status: Non-operational

Downlink: 435.1380 MHz AFSK 1200 BPS
Downlink: 435.2060 MHz AFSK 1200 BPS
Uplink: 145.8150 MHz AFSK 1200 BPS
Uplink: 145.8350 MHz AFSK 1200 BPS
Uplink: 145.8550 MHz AFSK 1200 BPS
Uplink: 145.8750 MHz AFSK 1200 BPS
[06042009]
=====
PO-28 POSAT-1
Catalog number: 22829
Launch Date: September 25, 1993

Status: Non-operational

Downlink: 429.950
Uplink: Not until handover back to Amatuer usage

Broadcast callsign: POSAT1-11
BBS callsign: POSAT1-12

AMSAT Webpage: http://www.amsat.org/amsat/sats/n7hpr/po28.html
POSAT-1 webpage:
http://www.ee.surrey.ac.uk/SSC/CSER/UOSAT/missions/posat1.html
[01012009]
=====
AO-27 AMRAD
Catalog number: 22825
Launch Date: September 26, 1993 0140z
Launch site: Kourou, French Guiana

Status: Recovery efforts in progress

Current Mode: V/u

Uplink: 145.850 MHz FM
Downlink: 436.797 MHz FM

Mode and Antenna Polarization:
V: Linear
U: Linear

Official Webpage: http://www.ao27.org
[12032012]
=====
IO-26 ITAMSAT
Catalog number: 22826
Launch Date: September 26, 1993 0140z

Status: PSK carrier only

Current Mode:

Uplinks: 145.875 MHz FM 1200-baud
145.900 MHz FM 1200-baud
145.925 MHz FM 1200-baud
145.950 MHz FM 1200-baud

Downlink: 435.808 MHz PSK

Broadcast Callsign: ITMSAT-11
BBS: ITMSAT-12

Official webpage: http://www.itamsat.org
AMSAT Webpage: http://www.amsat.org/amsat/sats/n7hpr/io26.html
[01212007]
=====
KO-25 KITSAT
Catalog number: 22828
Launch date: September 26, 1993

Status: Non-operational

Uplink: 145.980 MHz FM 9600-baud FSK
Downlink: 436.500 MHz FM

Broadcast Callsign: HL02-11
BBS: HL02-12
[05092004]
=====
AO-24 ARSENE
Catalog Number: 22654
Launch Date: May 13, 1993

Status: Non-operational

Uplink: 435.0625 MHz FM 1k2bps AFSK
435.1125 MHz FM 1k2bps AFSK
435.1375 MHz FM 1k2bps AFSK
Downlink: 145.9750 MHz FM 1k2bps AFSK
2446.5025 MHz FM 1k2bps AFSK

Beacon: 2446.4700 MHz CW

Broadcast callsign:
BBS:
[12162009]

=====
KO-23 KITSAT
Catalog number: 22077
Launch date: August 10, 1992

Status: Non-operational

Uplink: 145.900 MHz FM (9600-baud FSK)
Downlink: 435.170 MHz FM

Broadcast Callsign: HLO1-11
BBS: HLO1-12
[01222007]
=====
UO-22 UOSAT
Catalog number: 21575
Launch date: July 17, 1991

Status: Non-Operational

Uplink: 145.900 FM 9600-baud FSK
Downlink: 435.120 MHz FM

Broadcast Callsign: UOSAT5-11
BBS: UOSAT5-12
[01222007]
=====
AO-21 AMSAT-OSCAR 21
Catalog Number: 21087
Launch Date: January 29, 1991

Status: Non-Operational

Uplink: 435.041 MHz FM DSP
Downlink: 145.983 MHz FM DSP
[01222007]
=====
FO-20 JAS-1b
Catalog number: 20480
Launch Date: February 07, 1990

Status: Non-Operational

Beacons: 435.795 MHz CW
435.910 MHz AX25

Voice Transponder:
Uplink: 145.900 to 146.000 MHz CW/LSB
Downlink: 435.800 to 435.900 MHz CW/USB

Digital Transponder:
Uplinks: 145.850 MHz
145.870 MHz
145.890 MHz

145.910 MHz
Downlink: 435.910 MHz

More FO-20 info can be found at:
http://www.amsat.org/amsat/sats/n7hpr/fo20.html
[01152007]
=====
WO-18 WEBERSAT
Catalog Number: 20441
Launch Date: January 22, 1990

Status: Non-Operational

Downlink: 437.104 MHz SSB 1200 Baud PSK AX.25
[05012006]
=====
DO-17 Dove
Catalog Number: 20440
Launch Date: January 22, 1990

Status: Non-operational.

Downlink: 145.825 MHz FM 1200 Baud AFSK
Beacon: 2401.220 MHz
[05012006]
=====
AO-16 PACSAT
Catalog number: 20439
Launch Date: January 22, 1990

Status: non-operational

Current Mode: V/u

Uplink: 145.900 MHz FM 1200-baud Manchester FSK (reserved)
145.920 MHz FM VOICE
145.940 MHz FM 1200-baud Manchester FSK (reserved)
145.960 MHz FM 1200-baud Manchester FSK (reserved)

Downlink: 437.026 MHz USB VOICE
(1200-baud PSK - MBL Telemetry Only)

Mode-S Beacon: 2401.1428 MHz [NO FUTURE OPERATIONS PLANNED]

Mode and Antenna Polarization:
U: RC 437.050 MHz RHCP
PSK 437.026 MHz LHCP
V: Linear

Broadcast Callsign: PACSAT-11
BBS: PACSAT-12

AO-16 AMSAT Webpage: http://www.amsat.org/amsat/sats/n7hpr/ao16.html
[07242009]

=====
UO-15 UoSAT-4
Catalog Number: 20438
Launch Date: January 22, 1990

Status: Non-operational

Uplink: ?
Downlink: 435.1250MHz (?)
435.1200MHz (?)
[06042009]
=====
UO-14 UoSAT-3
Catalog number: 20437
Launch date: January 22, 1990

Status: Non-operational

Uplink: 145.975 MHz FM
Downlink: 435.070 MHz FM
[05092004]
=====
FO-12 Fuji-OSCAR 12
Catalog Number: 16909
Launch Date: August 12, 1986

Status: Non-Operational

Mode V/U (J) Linear Transponder (Inverting):
Uplink: 145.9000 - 146.0000 MHz SSB/CW
Downlink 435.8000 - 435.9000 MHz SSB/CW

Mode V/U (J) Packet:
Uplink: 145.8500 MHz MFSK 1200 BPS
Uplink: 145.8700 MHz MFSK 1200 BPS
Uplink: 145.8900 MHz MFSK 1200 BPS
Uplink: 145.9100 MHz MFSK 1200 BPS

Downlink 435.9100 MHz PSK 1200 BPS

Telemetry Beacon: 435.7950 MHz SSB/CW
[01152007]
=====
AO-10 OSCAR 10
Catalog number: 14129
Launch Date: June 16, 1983

Status: Non-operational

Uplink: 435.030 to 435.180 MHz CW/LSB
Downlink: 145.975 to 145.825 MHz CW/USB

Beacon: 145.810 MHz (unmodulated carrier)

W4SM has more information about the satellite at the following URL:
http://www.cstone.net/~w4sm/AO-10.html
[05092004]
=====
AO-8 AMSAT-OSCAR 8
Catalog Number: 10703
Launch Date: March 3, 1978

Status: Non-Operational

Mode V/U (J) Linear Transponder (Non-Inverting): Non-Operational
Uplink: 145.9000 - 146.0000 MHz SSB/CW
Downlink 435.1990 - 435.2000 MHz SSB/CW

Mode V/U (J) TLM Beacon: Non-Operational
Downlink 435.0950 MHz CW

Mode V/A (A) Linear Transponder (Non-Inverting): Non-Operational
Uplink: 145.8500 - 145.9000 MHz SSB/CW
Downlink 29.4000 - 29.5000 MHz SSB/CW

Mode V/A (A) TLM Beacon: Non-Operational
Downlink 29.4020 MHz CW
[01152007]
=====
AO-6 AMSAT-OSCAR 6
Catalog Number: 06236
Launch Date: October 15, 1972

Status: Non-Operational

Uplink: 145.9000 - 146.0000 MHz SSB/CW
Downlink: 29.4500 - 29.5500 MHz SSB/CW
Beacons: 29.450 MHz
435.100 MHz
[01312008]
=====
AO-5 Australis-OSCAR 5
Catalog Number: 04321
Launch Date: January 23, 1970

Status: Non-Operational

Telemetry Beacons: 144.0500 MHz CW
29.4500 MHz CW
[01152007]
=====
OSCAR III
Catalog Number: 01293
Launch Date: March 09, 1965

Status: Non-Operational

Uplink: 145.9750 - 146.0250 MHz SSB/CW
Downlink: 144.3250 - 144.3750 MHz SSB/CW

[01012007]
=====
RS-15 RADIO SPORT RS-15
Catalog number: 23439
Launch Date: December 26, 1994

Status: Non-operational

Uplink: 145.858 to 145.898 MHz CW/USB
Downlink: 29.354 to 29.394 MHz CW/USB

Beacon 1: 29.352 MHz (intermittent)
Beacon 2: 29.398 MHz

SSB meeting frequency: 29.380 MHz (unofficial)
[06202004]
=====
RS-13 RADIO SPORT RS-13
Catalog number: 21089
Launch date: February 5, 1991

Status: Non-operational

Uplink: 21.260 to 21.300 MHz CW/USB
Downlink: 145.860 to 145.900 MHz CW/USB

Beacon: 145.860 MHz

Robot: 145.908 MHz
[05232004]
=====
RS-12 RADIO SPORT RS-12
Catalog number: 21089
Launch date: February 5, 1991

Status: Non-operational

Uplink: 21.210 to 21.250 MHz CW/USB
Downlink: 29.410 to 29.450 MHz CW/USB

Beacon: 29.408 MHz

Robot: 29.454 MHz
[05232004]
NNNN
/EX

SB SAT @ AMSAT W8ISS $WSR-105.S4
WSR 105 Part 4 04/15/2013

AMSAT NEWS SERVICE BULLETIN 105.S4
FROM AMSAT HQ SILVER SPRING, MD, April 15, 2013
TO ALL RADIO AMATEURS
BID: $WSR-105.S4

THE FOLLOWING SATELLITES HAVE RE-ENTERED OR HAVE BEEN RETURNED SAFELY:

HAWKSAT 1
Catalog number: 35004
Launch Date: May 19, 2009 2355z
Launch site: Wallops Island, Virginia, USA

Status: re-entered
Re-entry date: September 04, 2012

Downlink: 437.345 MHz ?

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=105
[02112013]
=====
ARISSat-1
Catalog number: 37772
Launch date: August 03, 2011 1843z
Launch site: International Space Station

Status: Re-entered January 05, 2012

Callsign: RS01S

Current Mode(s):
Linear Transponder: U/v
Uplink: 435.758 to 435.742 MHz CW/LSB
Downlink: 145.922 to 145.938 MHz CW/USB

FM Telemetry/SSTV/Messages/ID:
Downlink: 145.950 MHz FM

Telemetry/Beacon:
Downlink: 145.939 MHz CW1
145.919 MHz CW2
145.920 MHz 1k BPSK USB
145.920 MHz 400b BPSK USB

Official Webpage:http://www.amsat.org/amsat-new/ARISSat/ARISSat.php

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/informal_detail.php?serialnum=89
[01052012]
=====
CP-6
Catalog Number: 35003
Launch Date: May 19, 2009 2355z
Launch site: Wallops Island, Virginia, USA

Status: Re-enetered October 06, 2011

Downlink: 437.365 MHz 1k2 AFSK

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=121

[01282013]
=====
Pharmasat
Catalog Number: 35002
Launch Date: May 19, 2009 2355z
Launch site: Wallops Island, Virginia, USA

Status: Re-entered August 14, 2012

Downlink: 437.465 MHz 1k2 AFSK

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=94
[01282013]
=====
ANUSAT
Catalog Number: 34808
Launch Date: April 20, 2009 0115z
Launch Site: Satish Dhawan Space Centre, India

Status: Re-entered
Re-entery date : April 18, 2012

Downlink: 435.000 MHz
Uplink: 145.800 MHz

Telemetry: 137.400 MHz
[02112013]
=====
CAERUS (Mayflower)
Catalog Number: 37252
Launch Date: December 08, 2010 15:43:00 UTC
Launch site: Kennedy Space Center, Titusville, Florida, USA

Status: Re-entered December 22, 2010

Uplink:
Downlink: 437.600 MHz 1k2 AX.25

Beacon: 437.600 MHz CW

Callsign: KJ6FIX

URL:
http://www2.isi.edu/research/prj-serc/prj-serc_projects/prj-serc_proje
cts-8.htm

IARU coordination status page:

[01282013]
=====
Cinema
Catalog Number: 36764
Launch Date: September 13, 2012 2139z

Launch Site: Wallops Island, Virginia, USA

Status: Ren-entered
Re-entry date: Spetember 10, 2010

Uplink:
Downlink:
Engineering: 2400 - 2450MHz
Telemetery: 2200 - 2300MHz

Beacon:

Callsign:

URL:
[02112013]
=====
CO-56 CUTE-1.7 + APD
Catalog number: 28941
Launch date: February 21, 2006

Status: Re-entered
Re-entered: October 25, 2009

Uplink: 1268.5000 MHz GMSK 9600 BPS
Downlink: 437.4700 MHz 1200 FM ax25 or SRLL (ACTIVE only near Japan?)

Telemetry Beacon: 437.3850 CW
Callsign: JQ1YPC

Information webpage:
http://lss.mes.titech.ac.jp/ssp/spacerium/cute1blog/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=56
[09062010]
=====
BEVO-1 (DRAGONSAT-1)
Catalog Number: 35690
Launch Date: May 19, 2009

Status: Re-entered
Re-entered:

Downlink: 437.325 MHz 9k6 GMSK
437.325 MHz CW 20wpm

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=117
[07312009]
=====
AggieSat2 (DRAGONSAT-2)
Catalog Number: 35690
Launch Date: May 19, 2009

Status: Re-entered
Re-entered:

Downlink: 436.250 MHz 9k6 FHSS
[11112009]
=====
Pollux
Catalog Number: 35693
Launch Date: July 31, 2009

Status: Re-entered
Re-entered:

Callsign: POLLUX-1

Downlink: 145.825MHz 1k2 AX.25

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=139
[09062010]
=====
Castor (ANDE-2)
Catalog Number: 35694
Launch Date: July 31, 2009

Status: Re-entered
Re-entered:

Callsign: KD4HBO-1

Downlink: 145.825 MHz 1k2 AX.25

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=144
[09062010]
=====
NO-62 FCAL
Catalog Number: 29667
Launch Date: December 21, 2006

Status: Re-Entered
Re-entered: July 28, 2008

Downlink: 437.385 Mhz APRS AX25

Downlink ID: KD4HBO

Website: http://eng.usna.navy.mil/~bruninga/fcal.html

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=59
[01012009]
=====
NO-61 ANDE
Catalog Number: 29664
Launch Date: December 21, 2006

Status: Re-Entered
Re-entered: December 25, 2007

Uplink/Downlink: 145.825 Mhz FM APRS AX25
[01032008]
=====
NO-60 RAFT-1
Catalog Number: 29661
Launch Date: December 21, 2006

Status: Re-Entered
Re-entered: May 30, 2007

Main Downlink: 145.825 Mhz FM APRS AX25
APRS Uplink: 145.825 MHz FM APRS AX25
Voice/PSK31 Uplink: 28.120 MHz

Packet to Voice ID: RAFT
[06112007]
=====
GENESAT-1
Catalog Number: 29655
Launch Date: December 16, 2006

Status: Re-Entered
Re-entered date: August 8, 2010

Current Mode: /u

Callsign: KE7EGC

Telemetry Beacon Downlink: 437.0695 MHz AFSK 1200 BPS

Official webpage: http://www.crestnrp.org/genesat1/ahc.html
[08082010]
=====
HO-59 HITSat
Catalog number: 29484
Launch date: September 22, 2006

Status: Re-Entered
Re-entered: June 18, 2008

Telemetry Downlink: 437.4250 MHz AFSK 1200 BPS
Beacon: 437.2750 MHz CW

Callsign: JR8YJT
[01012009]
=====
SO-43 Starshine 3
Catalog Number: 26929
Launch Date: September 30, 2001

Status: Re-Entered
Re-entered: January 21, 2003

Beacon: 145.825Mhz
[02212009]
NNNN
/EX

ANS is released worldwide via the AMSAT ANS e-mail reflector and a live
radiocast on the AMSAT-NA 20-meter net held each Sunday on 14.282 MHz.
Pre-net operations start at 18:00 UTC, with current ANS bulletins trans-
mitted to the eastern U.S. at 19:00 UTC and to the western U.S. at 19:30
UTC.

Information on AMSAT-NA is available at the following URL:
http://www.amsat.org

Mailing address:
AMSAT-NA
850 Sligo Avenue, Suite 600
Silver Spring, Maryland 20910-4703

Voice: 301-589-6062
888-322-6728
FAX: 301-608-3410

Currently, AMSAT-NA supports the following (free) mailing lists:

* AMSAT News Service (ANS)
* General satellite discussion (AMSAT-BB)
* Orbit data (KEPS)
* Manned space missions (SAREX)
* District of Columbia area (AMSAT-DC)
* New England area (AMSAT-NE)
* AMSAT Educational Liaison mailing list (AMSAT-EDU)
* AMSAT K-12 Educational Liaison mailing list (AMSAT-K12)

A daily digest version is available for each list.

To subscribe, or for more list information, visit the following URL:
http://www.amsat.org/mailman/listinfo/ans

In addition to regular membership, AMSAT-NA offers membership in the
President's Club. Members of the President's Club, as sustaining
donors to AMSAT Project Funds, will be eligible to receive additional
benefits. Application forms are available from the AMSAT-NA Office.

This week's Weekly Satellite Report Editor is James French, W8ISS.

ANS is always dedicated to past ANS editor 'BJ' Arts, WT0N, and to
the memory of longtime AMSAT supporters Werner Haas, DJ5KQ, Dennis
Kitchen, G0FCL and John Branegan GM4IHJ.

Please send any amateur satellite news or reports to: ans-editor{at}
amsat.org

NNNN
/EX

_____
Via the ANS mailing list courtesy of AMSAT-NA
http://amsat.org/mailman/listinfo/ans

60. ANS-104 AMSAT News Service Weekly Bulletins

Newsgroup: rec.radio.amateur.space
Date: 2013-04-14 02:24:25 UTC
From: JoAnne Maenpaa <k9jkm@comcast.net>
Message-ID: <002901ce38b7$22dc8110$68958330$@net>
Source record: 37
Cross-posted to: rec.radio.amateur.space,rec.radio.info

AMSAT NEWS SERVICE
ANS-104

The AMSAT News Service bulletins are a free, weekly news and information service of AMSAT North America, The Radio Amateur Satellite Corporation. ANS publishes news related to Amateur Radio in Space including reports on the activities of a worldwide group of Amateur Radio operators who share an active interest in designing, building, launching and communicating through analog and digital Amateur Radio satellites.

The news feed on http://www.amsat.org publishes news of Amateur Radio in Space as soon as our volunteers can post it.

Please send any amateur satellite news or reports to:
ans-editor at amsat.org.

In this edition:

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* Satellite Shorts From All Over

SB SAT @ AMSAT $ANS-104.01
ANS-104 AMSAT News Service Weekly Bulletins

AMSAT News Service Bulletin 104.01
>From AMSAT HQ SILVER SPRING, MD.
DATE April 14, 2013
To All RADIO AMATEURS
BID: $ANS-104.01

****
* Volunteers are needed to help at the AMSAT booth at Dayton. *
* Steve Belter N9IP, is looking for volunteers to help man the *
* AMSAT booth during the 2013 Hamvention. If you are willing *
* to help at the Hamvention, please send an e-mail by April 30 *
* to Steve Belter, n9ip@amsat.org. *
* *
* Monitor the 'AMSAT at Dayton Hamvention 2013' link on the new *
* AMSAT Web Site http://www.amsat.org for the latest AMSAT at *
* Dayton news and developments *
****

AMSAT-NA Board of Directors Nominations Solicited

It is time to submit nominations for the upcoming open seats on the AMSAT-NA Board of Directors. A nomination requires either one Member Society or five current individual members in good standing to nominate an AMSAT member for the position. Four director's terms expire this year: Barry Baines, WD4ASW, Alan Biddle, WA4SCA, Drew Glasbrenner, K04MA, and Tony Monteiro, AA2TX.

In addition to traditional submission of written nominations, which remains unchanged and is the preferred method, nominations may be made by electronic means. These include e-mail, FAX, or electronic image of a petition. Electronic petitions should be sent to MARTHA@AMSAT.ORG or faxed to 301-608-3410. Written nominations, consisting of names, calls and individual signatures should be mailed to: AMSAT-NA, 850 Sligo Ave #600, Silver Spring, MD, 20910. No matter what means is used, petitions MUST arrive no later than June 15th at the AMSAT-NA office. If the nomination is a traditional written nomination, no other action is required. If it is other than this, i.e. electronic, a verifying traditional written petition MUST be received at the AMSAT-NA office at the above address within 7 days following the close of nominations on June 15th. ELECTRONIC SUBMISSIONS WITHOUT THIS SECOND, WRITTEN VERIFICATION ARE NOT VALID UNDER THE EXISTING AMSAT-NA BYLAWS.

[ANS thanks Alan, WA4SCA, AMSAT Corporate Secretary for the above information]

7330.6 km Contact Made Via FO-29

On Monday 8 April 2013 at 1338z, David, EA4SG (grid IN80cp, Spain) and Hector, CO6CBF (grid EL92sd, Cuba) completed a SSB contact via FO-29, successfully. On the AMSAT-BB Hector reported "We had just a 88 seconds window. I was operating portable from on top of a tall building as before. Satellites are always fascinating! Thanks very much to David for this great contact and new grid!"

Based on QRZ.com, the distance between the two stations is 7330.6 km.

[ANS thanks Hector, CO6CBF for the above information]

GS3PYE/p Satellite Operation Planned From Inner Herbrides Islands

Members of the Camb-Hams will once again activate the Isle of Mull (IOSA NH15, SCOTIA CN10, WLOTA 2485), Inner Hebrides, as GS3PYE/p between May 10-16. The Camb-Hams have been activating the Scottish Isles each year since 2008.

Look for thirteen operators to be active on all bands and many modes from 160-2 meters as well as 472 kHz. The HF bands will be covered by five simultaneous stations, while 6m, 4m and 2m stations will have a great take-off towards the UK and Europ from the island's south-east coast in IO76 square.

They will have an antenna elevation system for 2m EME activity and will also be on many of the VHF/UHF satellite passes. WSPR beacons will be operating on most of the inactive bands to help find the best propagation. Contest operations will take place in 70 MHz CW on May 12th and 432 MHz UKAC on May 14th. The group will be active on the major social networks before, during and after the trip.

You can check on progress or interact with the operators via their blog at <dx.camb-hams.com> or through Twitter <twitter.com/g3pye>, Facebook <facebook.com/CambHams> and YouTube <youtube.com/CambHams>. Previous trips have generated some great audio and video recordings of the GS3PYE/P signal from around the world. Check their previous blogs and their YouTube channel and see if you can post a better recording.

Please E-mail <skeds-2013@camb-hams.com> to arrange skeds on the more challenging bands and modes. VHF and EME skeds will also be made via ON4KST and N0UK's EME Chat. All links are available via <dx.camb-hams.com>.

[ANS thanks Ohio/Penn DX Bulletin No. 1107 for the above information]

STEREO Space Weather Beacons Now Using AMSAT-DL Turbo Code

On 2nd April 2013, the two NASA STEREO space-based observatories switched to Turbo Codes to transmit their real-time space weather data permanently. A network of four ground stations, located at the IUZ in Bochum/Germany, CNES in Toulouse/France, NICT in Koganei/Japan and amateur radio station DL0SHF in Kiel-Ronne/Germany receives this data, and uses turbo-decoding software written by AMSAT-DL.

The Bochum station is run by AMSAT-DL e.V. and IUZ Bochum Observatory, with the support of the Federal Ministry of Economics and Technology and DLR.

Said Doug Biesecker, NOAA Space Weather Prediction Center:

"Thanks to the wonderful work of our colleagues running the station in Bochum and the support of DLR, we can now be sure of receiving

real-time data from the NASA/STEREO satellite throughout the life of the mission. The STEREO data has proven to provide significant benefits to space weather forecasting and is used by NOAA on a daily basis to ensure the best possible forecasts. Space weather increasingly threatens the technological infrastructure of our modern world, with demonstrated impacts on global positioning, power grids, and high frequency communication systems."

The switch to Turbo Codes has improved reception capabilities of the ground stations by about 2 dB, which is a very welcome improvement giving the increasing distances - 269 and 286 million kilometers respectively - that need to be covered.

The original AMSAT-DL posting can be accessed at:
http://tinyurl.com/c6pbz7x

[ANS thanks AMSAT-DL for the above information]

AMSAT Awards

Awards have been very slow this year. Might be due to the lack of satellites.

+ The following have entered into the Satellite Communicators Club for making their first satellite QSO.

Christopher Friesen, VE4CWF
Michael Haman, KB7SNQ
Ron Rappel, W1RPR

+ The following have earned the AMSAT Communications Achievement Award.

Glyn Dodwell, GM4CFS, #554

+ The following have earned the South Africa Satellite Communications Achievement Award.

Glyn Dodwell, GM4CFS, #US184

+ The following have earned the AMSAT Century Club Award. This award is not that easy to earn.

Wyatt Dirks, AC0RA, #42

Until the amsat.org website is fully restored, you can see all the awards at my website. http://http://www.amsatnet.com/

[ANS thanks Bruce Paige, KK5DO for the above information]

Applications for Teachers Institute, ETP Grants Due by May 15

Attention, teachers who are thinking about using Amateur Radio and wireless technology in their classrooms to help facilitate hands-on learning opportunities. The ARRL’s Education & Technology Program
(ETP) offers two programs that can help make this happen, but the application deadlines are fast approaching: The deadline for the 2013 Teachers Institute on Wireless Technology (TI) is May 15, while the deadline for equipment and resource grants was May 1.

Teachers Institute on Wireless Technology

Seats are still available for the two introductory Teachers Institute (TI-1) sessions offered this summer, one at ARRL Headquarters in Newington, Connecticut (July 8-11) and one in Rocklin, California (July 15-18). These four-day intensive professional development seminars provide training and resources for introducing basic electronics, the science of radio, space technology and satellite communications, weather science, microcontroller fundamentals and basic robotics into classroom instruction. The curriculum is designed for motivated teachers who want to learn more about wireless technology and share that knowledge with their students. Resources, travel, and room and board expenses are provided by donations to the Education & Technology Program Fund.

The ETP is also offering an advanced Teachers Institute (TI-2) session that focuses on the basic electronics behind sensor technology. Teachers will receive instruction in the use of a selection of sensors (such as temperature, pressure, position and humidity), analog-to-digital conversion techniques, the microcontroller programming involved in accessing the sensors and the use of radio (packet radio-like data links) that connect the sensor outputs to the user. Participants will also explore numerous deployment systems that they might use in their classrooms, including land and water robots, buoys, balloons and satellites. This four-day professional development workshop is sponsored by Dayton Amateur Radio Association and is held in Dayton, Ohio (July 22-25).

The deadline for both the TI-1 (Connecticut and California) and TI-2 (Ohio) sessions is May 15. Apply now!
http://www.arrl.org/teachers-institute-application

Equipment and Resource Grants

ETP grants for school radio stations are awarded to schools that provide a plan for using Amateur Radio as part of an enrichment program and/or as part of in-classroom learning. Find more information, as well as applications for a School Station Grant or for a Progress Grant, on the ETP Grants web page
http://www.arrl.org/etp-grants.
The deadline for applications was May 1.

If you would like to learn more about how teachers are using Amateur Radio to engage students in the classroom, visit ARRL's Classroom

Activities page.
http://www.arrl.org/classroom-activities

[ANS thanks Debra Johnson, K1DMJ and The ARRL for the above information]

Ken Pulfer, VE3PU, SK

Avid ARISS supporter, Ken Pulfer, VE3PU, has become a Silent Key.

Those of you that have been involved with ARISS from the beginning know that Ken was one of the ARISS pioneers. Ken was a member of the first cadre of ARISS delegates and was integral in leading the startup of ARISS.

Ken's intimate knowledge of the space agencies, resulting from his background as a Senior Executive in the Canadian Space Agency, was crucial in helping ARISS formulate the strategies needed to garner support across our international space agency partners. Also, his in-depth understanding of amateur radio policy and connections into the ITU were important factors in helping the ARISS team prepare themselves to develop and operate the unique, multi-national amateur radio platform on ISS that is ARISS. He was a key contributor in guiding the ARISS team in frequency coordination, licensing and callsign strategy. He also was integral in developing ARISS' terms of reference, our policy for assigning delegates, and he led the effort to nominate and elect our first set of officers. I, for one, will certainly miss Ken's leadership and guidance. He helped the ARISS program grow from infancy to the strong, international Educational Outreach program that it is now.

I note that even just a few weeks ago Rosalie White, K1STO and I solicited Ken's guidance on some ITU matters that our ARISS international team were addressing. In all matters, Ken was a "Gentleman's Gentleman"---the "best of the best. " His presence and support will be sorely missed by me. And by all in the ARISS community.

On behalf of the ARISS team, I want to extend our condolences to all Ken Pulfer's family and friends. May Ken Rest in Peace.

[ANS thanks Frank H. Bauer, KA3HDO for the above information]

Cubesat Launches This Week

April 19 BAIKONUR Soyuz-2-1b

A Soyuz-2-1b from the Baikonur launch facility, in Kazakhstan on
April 19, 2013 will include three cubesat missions:

Satellite	Downlink	Mode
OSSI-1	145.980/437.525	CW/1200bps
SOMP	437.485	1200, 9600bps BPSK
BEESAT-2/3	435.950	4800bps GMSK
Bion-M1		Biological research satellites
AIST		Measurement of the Earth's geomagnetic field
Dove-2		Commercial technology demonstration mission

OSSI-1

145.980 MHz CW, 437.525 MHz 1k2

OSSI-1, the Open Source Satellite Initiative satellite is a cubesat
developed by Hojun Song DS1SBO. In addition to the radio beacons
OSSI-1 also carries a 44 watt LED optical beacon to flash Morse Code
messages to observers on Earth.

The development of the satellite has been documented on the Open
Source Satellite Initiative Blog http://opensat.cc/blog/ and the
Wiki http://opensat.cc/wiki/
http://www.youtube.com/watch?v=OL0zSY6cg

SOMP

Downlink on 437.485 MHz including CW, 1k2 and 9k6 BPSK, AX25 FSK,
and AO40 standard 400bit/s BPSK

The Student Oxygen Measurement Project (SOMP) is a cubesat devel-
oped by students of the Technische Universität Dresden, Germany,
organized in the Students' Research Group for Spacecraft Engineer-
ing in Dresden (STARD). SOMP will be a standard sized single CubeSat
with one payload side and five sides with two solar cells each.

http://phpweb.tu-dresden.de/stard/SOMP/?lang=
http://tinyurl.com/SOMP-AMSAT-UK-Posting

BEESAT-2/3 (Berlin Experimental and Educational Satellite)
435.950 MHz, 4k8 GMSK (both satellites)

BEESAT-2 is a cubesat-sized vehicle carries a technology experiment
using gyros and sensors for precise orientation.

BEESat-3 is another cubesat-sized vehicle that will test high-speed
data links (up to 1MB/s).

http://www.raumfahrttechnik.tu-berlin.de/beesat/

The above cubesat missions and the scientific/commercial missions
are also documented on Mineo Wakita's (JE9PEL) web page at:
http://www.ne.jp/asahi/hamradio/je9pel/ossisomp.htm

April 20 KOUROU Vega Launch

Estonia's first CubeSat ESTCube-1, amateur radio callsign ES5E/S,
is planning to launch from Kourou in the Caribbean at 02:06:31 UT,
April 20, 2013 on an ESA VEGA rocket.

Built by students at the University of Tartu ESTCube-1 the main
mission of the satellite is to test electric solar wind sail tech-
nology, a novel space propulsion technology that could revolution-
alize transportation within the solar system. It will deploy a 10
meter conductive electrodynamic tether and the force interacting
with the tether will be measured.

The IARU Amateur Satellite Frequency Coordination Panel have pub-
lished these frequencies for ESTCube-1:

+ 437.250 MHz - CW beacon, callsign ES5E/S
+ 437.505 MHz - 9600 bps AX.25 telemetry, callsign ES5E-11

More information and a video has been posted at:
http://amsat-uk.org/?p774

[ANS thanks AMSAT-UK and Mineo Wakita, JE9PEL for the above
information]

April 17 Antares Launch Includes Three PhoneSat Cubesats

Three PhoneSat cubesats will be aboard the Orbital Sciences
Corporation Antares(TM) rocket from NASA's Wallops Flight Facility
(WFF) in eastern Virginia scheduled for April 17 at approximately 5:00
p.m. (EDT).

Phonesat carries an amateur radio payload on 437.425 MHz, was chosen
as one of the winners in the Aerospace category for the Popular
Science magazine "Best of What's New 2012" awards. The PhoneSat is a
technology demonstration mission consisting of three 1U CubeSats
intended to prove that a smartphone can be used to perform many of the
functions required of a spacecraft bus.

The satellite is built around the Nexus smartphone which will be
running the Android operating system and will be enclosed in a
standard 1U cubesat structure. The main function of the phone is to
act as the Onboard Computer, but the mission will also utilize the
phone's SD card for data storage, 5MP camera for Earth Observation,
and 3-axis accelerometer and 3-axis magnetometer for attitude
determination.

One of the nanosatellites, powered by the HTC Nexus One smartphone,
will send back pictures of Earth. The other two, running on the

Samsung Nexus S, will have two-way S-band radio allowing them to be controlled from Earth.

With a short lifetime of only about one week, the satellites have no solar cells and operate on battery only.

An article on SpaceRef.com describes the Antares test flight, dubbed the A-ONE mission, as the first of two missions Orbital is scheduled to conduct in 2013 under its Commercial Orbital Transportation Services (COTS) Space Act Agreement with NASA. Following a successful A-ONE launch, Orbital will carry out a full flight demonstration of its new Antares/Cygnus cargo delivery system to the International Space Station (ISS) around mid-year. In addition, the company is also scheduled to launch the first of eight operational cargo resupply missions to the ISS in 2013 under the Commercial Resupply Services (CRS) contract with NASA. All COTS and CRS flights will originate from NASA's WFF, which is geographically well suited for ISS missions and can also accommodate launches of scientific, defense and commercial satellites to other orbits. The Antares medium-class launch system will provide a major increase in the payload launch capability that Orbital can provide to NASA, the U.S. Air Force and other customers. (Reference: http://spaceref.com/news/viewpr.html?pid@502)

The Antares launch includes the commercial DOVE-1 satellite, a technology development experiment. The satellite had requested IARU coordination for a 1 watt transmitter on 145.825 MHz to downlink a 1200 baud AFSK AX.25 beacon with telemetry and health data. The IARU reported in January that DOVE-1 will no longer be using frequencies in the amateur radio bands based on information posted on the IARU satellite coordination web page for this mission. (Reference: ANS-027 - http://amsat.org/pipermail/ans/2013/000688.html)

See related news at:
http://tinyurl.com/bvwksba
http://amsat-uk.org/?p544 (phonesat)

[ANS thanks SpaceRef, AMSAT-UK, and Oribital Sciences for the above information]

PhoneSat Tracking Help Requested

The very first PhoneSat’s will be launching aboard the Antares on
April 17th at 1700 EDT (launch window to April 19th possibly further). We have manifested 2x PhoneSat 1.0 and 1x PhoneSat 2.0 Beta The orbit is very low (270km x 300km 51.6deg) and they will only be up there for 2 weeks! The phonesat team is looking for as many people as possible to help with tracking their satellites. All three satellites will be transmitting on 437.425MHz and TLE’s + more info
can be found at www.phonesat.org

You can report your received telemetry packets on this web page also.

[ANS thanks Samudra N3RDX for the above information]

STRaND-1 signal reports requested

Dr Chris Bridges from the Surrey Space Centre has advised that the amateur radio beacon on their STRaND-1 CubeSat, the first UK CubeSat became intermittent over the Easter weekend. STRaND-1, was launched on February 25 at 1231 UT on the PSLV-C20 rocket from the Indian Space Research Organisation (ISRO) Satish Dhawan space centre. Both Mike Rupprecht DK3WN and Nader Omer ST2NH have reported that no signals have been heard since Sunday.

Radio amateurs are asked to listen for STRaND-1 transmitting a 9k6 bps AX.25 signal around 437.568 MHz (+/- Doppler) over the next few days. Please report any positive results to C.P.Bridges[at]surrey.ac.uk

STRaND-1
http://amsat-uk.org/satellites/strand-1/

STRaND-1 telemetry beacon
http://amsat-uk.org/satellites/stran…d-1-telemetry/

STRaND-1 videos
http://amsat-uk.org/satellites/strand-1/strand-1-videos/

[ANS thanks AMSAT-UK for the above information]

Merritt Island High School Mission Selected for NASA Cubesat Launch Initiative

Information Week published news of the Merritt Island High School team who developed StangSat.

The fourth round of selections in NASA’s CubeSat Launch Initiative
also included a team of high school students at the Merritt Island High School in Brevard County, Florida. They plan to build a cubesat containing two accelerometers to measure the amount of vibration in the Poly Picosatellite Orbital Deployer, or P-POD case that holds the cubesats during launch and then deploys them.

The high school is partnering with students at California Polytechnic State University in San Luis Obispo. The Cal-Poly CubeSat, dubbed CP9, is actually two cubes that contain accelerometers, plus a radio to transmit data back to Earth for the high school students to analyze. The Merritt Island High School cubesat, named StangSat, will stream data to the CP9 in real time during the launch using Wi-Fi.

“We’re going to be demonstrating that wireless
transmissions inside
the P-POD aren’t going to harm the launch,” said Adam
Darley, a
senior at Cal-Poly who is serving as the CP9 project manager.
“If we
can demonstrate that, then it will act as a platform to being able to
stream information without a radio link.”

The Merritt Island High School Cubesat team has more information and
photos posted on their Facebook page.

[ANS thanks Information News for the above information]

ARISS News

Successful Contacts

+ 820 Chris Hadfield Royal Canadian Air Cadet Squadron, Milton,
Ontario on 06 April 2013.

A successful ARISS Contact was made with participants at 820 Chris
Hadfield Royal Canadian Air Cadet Squadron, Milton, Ontario on 06
Apr. The event began at approximately 20:25 UTC. The contact was be a
telebridge between NA1SS and LU8YY. The contact was audible over
portions of South America, and was conducted in English.

The Royal Canadian Air Cadet program is a national organization
sponsored by the Canadian Forces and its civilian counterpart, the
Air Cadet League. The aim of the program is to develop in youth the
attributes of good citizenship and leadership, promote physical
fitness and stimulate interest in the air activities of the Canadian
Forces. Cadet membership is open to all boys and girls ages 12-18 and
is administered by specially trained Canadian Forces reserve members.
There is no cost to join and uniforms are provided. 820 Chris
Hadfield Royal Canadian Air Cadet Squadron is proudly named after
Commander C Hadfield who was a member at the unit in his youth.

+ Sir George Simpson Jr. High, Albert, AB, Canada on 09 April 2013

A successful ARISS Contact was made with participants at Sir George
Simpson Jr. High, Albert, AB, Canada on 09 April. The event began at
approximately 20:00 UTC. The duration of the contact was
approximately 9 minutes and 30 seconds. The contact was a telebridge
between OR4ISS and IK1SLD and was audible over portions of Italy. The
contact was conducted in English and French.

Sir George Simpson Public School is a junior high located in St.
Albert, Alberta. Currently, they have approximately 540 students
enrolled in a variety of programs.

The school houses several programs: English, French Immersion,
Academic Challenge, Learning Assistance, Opportunity, Knowledge and

Employability, and Behaviour Improvement.

While learning in their respective programs, all students are invited to rally around their school motto: "Spirit, Growth, Success" in both thought and action.

Simpson offers many extracurricular activities such as Social Justice, Cheerleading, Art Club and their SABLE high altitude balloon club.

+ Innalik School, Inukjuak, Nunavut, Canada on 12 April 2013

A successful ARISS Contact was made with participants at Innalik School, Inukjuak, Nunavut, Canada on 12 April. The event began at approximately 17:30 UTC. The duration of the contact was approximately 9 minutes and 30 seconds. The contact was a telebridge between OR4ISS and IK1SLD, and was audible over portions of Italy. The contact is was conducted in English, French, and Inuktitut.

Inukjuak is a remote, fly-in Inuit community located on the Hudson Bay in Northern Quebec. Its population is approximately 1,600. The Inuit of Inukjuak still partake in many cultural practices, for example; constructing sleds or harpoons, sewing traditional garments, training dogsled teams, hunting, fishing and berry picking. However, they also have a window into the modern world and are current on fashion trends, popular music, and breakout phenomena like "Gangnam Style". The primary language in the school and in the village is Inuktitut; English and French are secondary languages.

ARISS Contacts Scheduled for the coming Week

+John McCrae High School, Nepean, Ontario, Canada, telebridge via IK1SLD Contact is a go for: Wed 2013-04-17 18:05:02 UTC 28 deg

+Gray Mountain Primary School, Whitehorse, Yukon, Canada, telebridge via IK1SLD Contact is a go for: Sat 2013-04-20 18:47:50 UTC 32 deg

ARISS is requesting listener reports for the above contacts. These contacts should be audible over portions of Italy and Europe. Due to issues with the Kenwood radio that are not fully understood at present, the Ericsson radio is going to be used for these contacts. ARISS thanks everyone in advance for their assistance. Due to continuing Space X operations, the above times are subject to last minute changes or cancellations.

+Here you will find a listing of all scheduled school contacts, and questions, other ISS related websites, IRLP and Echolink websites, and instructions for any contact that may be streamed live. http://www.amsat.org/amsat/ariss/news/arissnews.rtf

[ANS thanks David, AA4KN, Charlie, AJ9N ans ARISS for the above information]

Schedule of AMSAT Activities at Dayton Hamvention

AMSAT Hamvention activities and displays are planned to take place
at the new booth location (444-446 and 433-435) in the Ball Arena,
and outside in the Satellite Demonstration Area just outside the
Ball Arena entrance.

2013 theme for AMSAT at Dayton is "AMSAT - A View to the Future."

Here are the daily AMSAT activities for on-site and off-site events
at the 2013 Hamvention!

Thursday 16 May 2013

+ 11:00 AM - 5:00 PM
AMSAT Booth Setup at Ball Arena (contact Steve Belter, N9IP,
n9ip at amsat.org if you can help during this time).

+ 6:30 PM - 10:00 PM
The third Annual AMSAT "Dinner at Tickets" party will be held at
Tickets Pub & Eatery in Fairborn, OH. Check out the 'AMSAT at Day-
ton Hamvention 2013' link to the page 'AMSAT Dayton Social Events'
on the new Web Site: http://www.amsat.org.

Friday 17 May 2013

+ 9:00 AM - 6:00 PM at the AMSAT Booth
AMSAT Booth open for membership renewals, books, new items and
information.

+ 6:30 PM - 10:30 PM AMSAT/TAPR Banquet at Dayton 2013
AMSAT/TAPR Banquet on Friday night, May 18 is one of the main AMSAT
activities during the 2013 Hamvention at Dayton. See the bulletin
below for details!

Saturday 18 May 2013

+ 9:00 AM - 5:00 PM at the AMSAT Booth
AMSAT Booth open for membership renewals, books, new items and
information.

+ 11:15 AM - 1:30 PM The AMSAT Forum
Get the latest information about what is going on with AMSAT and
its projects. The AMSAT Forum will be held in Forum Room 5. See
the bulletin below for details!

Sunday 19 May 2013

+ 9:00 AM - 1:00PM at the AMSAT Booth
AMSAT Booth open for membership renewals, books, new items and
information.

+ 1:00PM - 3:00PM at the AMSAT Booth
Take down and storage of the AMSAT Booth. (contact Steve Belter, N9IP, n9ip at amsat.org if you can help during this time).

Demos Daily on Friday, Saturday, and Sunday for All Available Passes
---
AMSAT is encouraging everyone attending the 2013 Dayton Hamvention to come by the Satellite Demonstration Area just outside of the Ball Area entrance and make a contact using the amateur satellites. There will be AMSAT volunteers to explain how to make the contacts and during actual satellite passes will complete as many actual contacts as possible. Satellite pass times will be posted in the satellite demonstration area and at the AMSAT booth.

[ANS thanks AMSAT's 2013 Dayton Committee for the above information]

Satellite Shorts From All Over

+ Happy Birthday Peter Brown VK4PJ

AMSAT Life Member Number 1130, Peter Brown, VK4PJ celebrated his 100th birthday April 13. Peter who didn't become a ham until "later" in life at near age 50, joined AMSAT in 1979. Congratulations, Peter.

+ Congratulations to George Carr, WA5KBH for attaining 531 grids confirmed on his Satellite VUCC Award! VUCC daily updates posted at: http://www.arrl.org/vucc-standings

+ Interview about Moon-bounce

A video of what appears to be a radio interview about Moon-bounce/EME has been posted on YouTube

The interview is not in English but the moon bounce signals can be heard from 4:20 into the video.

Watch Radio amateur EME Moon Bounce - http://tinyurl.com/cu5y8ov

[ANS thanks Southgate Amateur Radio News for the above information]

+ AMSAT YouTube Channel

AMSAT-NA is pleased to announce a dedicated YouTube channel for videos on and about amateur satellite operations. These will include demonstration videos as well as presentations at the AMSAT-NA Dayton Hamvention Forum and yearly General Membership Meeting and Symposium. It also links to the AMSAT-UK and AMSAT-DL channels for additional views and perspectives. The AMSAT-NA channel may be reached through the www.amsat.org web site, or directly via www.youtube.com/AMSATNA

[ANS thanks Alan, W4SCA, for the above information]

+ Check out page 13 of the May 2013 QST ... there is a nice photo and write up of Bill Tynan, W3XO, receiving the Barry Goldwater Award from

the Radio Club of America.

The ARRL posted the initial announcement at:
http://tinyurl.com/Bill-Tynan-W3XO (www.arrl.org)

The AMSAT News Service announcement can be found at:
http://amsat.org/pipermail/ans/2012/000651.html

[ANS thanks JoAnne K9JKM, and the ARRL for the above information]

+ Preparations are underway aboard the ISS for a Russian Segment (RS) Extravehicular Activity (EVA) #32 scheduled for April 19. Status reports indicate that rechargeable battery packs, helmet lights, the pistol grip tool are being prepared to support the EVA. These activities usually require the amateur radio equipment to be turned off, affecting school contact and the 145.825 MHz packet radio operations.

[ANS thanks JoAnne K9JKM for the above information]

/EX

In addition to regular membership, AMSAT offers membership in the President's Club. Members of the President's Club, as sustaining donors to AMSAT Project Funds, will be eligible to receive additional benefits. Application forms are available from the AMSAT Office.

Primary and secondary school students are eligible for membership at one-half the standard yearly rate. Post-secondary school students enrolled in at least half time status shall be eligible for the student rate for a maximum of 6 post-secondary years in this status. Contact Martha at the AMSAT Office for additional student membership information.

73,
This week's ANS Editor,
EMike McCardel, KC8YLD

61. Weekly Highlights of Solar and Geomagnetic Activity, 08 - 14 April 2013

Newsgroup: rec.radio.amateur.space
Date: 2013-04-15 15:30:06 UTC
From: SWPC.Webmaster@noaa.gov
Message-ID: <20130415153001.CE97633C54@panix2.panix.com>
Source record: 38
Cross-posted to: rec.radio.amateur.misc,rec.radio.amateur.dx,rec.radio.amateur.space,rec.radio.shortwave,rec.radio.info

```
:Product: Weekly Highlights and Forecasts
:Issued: 2013 Apr 15 0630 UTC
# Prepared by the US Dept. of Commerce, NOAA, Space Weather Prediction Center
# Product description and SWPC contact on the Web
# http://www.swpc.noaa.gov/weekly.html
#
# Weekly Highlights and Forecasts
#
Highlights of Solar and Geomagnetic Activity
08 - 14 April 2013

Solar activity was at very low to high levels during the period. The
period began at low levels that persisted until early on 11 April.
At 11/0716 UTC, solar activity reached high levels as Region 1719
(N11, L=077, class/area Eki/290 on 12 April) produced an M6/3b flare
with Type II (estimated speed 1370 km/s) and Type IV radio sweeps, a
Tenflare (470 sfu), and an associated asymmetric full halo coronal
mass ejection (CME) with an estimated plane-of-sky speed of 1142
km/s. On 12 April, solar activity reached moderate levels as Region
1718 (N21, L=109, class/area Dkc/510) produced an M3 flare at
12/2038 UTC. Solar activity decreased to low levels on 13 April with
a further decrease to very low levels on 14 April as the majority of
the regions on the visible disk decreased in either area or
complexity.

Greater than 10 MeV and greater than 100 MeV proton events were
observed during the period associated with the 11 April M6/3b flare.
The greater than 10 MeV proton event began at 11/1055 UTC, reached a
peak flux of 114 pfu at 11/1645 UTC, and ended at 12/2210 UTC. The
greater than 100 MeV proton event began at 11/0940 UTC, reached a
peak flux of 2 pfu at 11/1400 UTC, and ended at 11/1955 UTC.

The greater than 2 MeV electron flux at geosynchronous orbit was
normal to moderate levels through the period.

Geomagnetic field activity was at quiet levels until late on 13
April when a geomagnetic shock was observed in ACE/SWEPAM data
associated with the 11 April CME. At 13/2215 UTC, the total field
(Bt) increased from 4 nT to 10 - 13 nT, while the solar wind speed
increased from approximately 365 km/s to 480 km/s. An associated
geomagnetic sudden impulse was observed in the Boulder magnetometer
(29 nT) at 13/2255 UTC. This produced an unsettled period to end the
UTC day on 13 April. By 14 April, the geomagnetic field continued to
be under the influence of the 11 April CME. Total field was variable
```

between 4 and 14 nT while the Bz component of the interplanetary magnetic field was mostly positive between 1 - 12 nT with brief southward deflections to a maximum of -7 nT. Solar wind speed reached a maximum of 558 km/s at 14/0443 UTC before slowly decreasing to end the period near 460 km/s. The geomagnetic field responded with quiet to unsettled conditions on 14 April with a brief period of active to minor storm conditions mid-day at high latitudes.

Forecast of Solar and Geomagnetic Activity
15 April - 11 May 2013

Solar activity is expected to be at very low to low levels with a chance for an M-class flare from 15 April to 18 April when Regions 1718 and 1719 depart the visible disk. Very low to low levels are expected from 19 April to 28 April. From 29 April to 11 May, solar activity is expected to be at very low to low levels with a chance for M-class flaring as Regions 1718 and 1719 return to the visible disk.

No proton events are expected at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit is expected to be at moderate to high levels on 16 - 18 April due to CME effects. Moderate to high levels are expected again on 25 April - 02 May due to coronal hole high speed stream (CH HSS) effects. Normal to moderate levels are expected for the rest of the period.

Geomagnetic field activity is expected to be quiet to unsettled on 15 April due to residual effects from the 11 April CME. Mostly quiet conditions are expected from 16 - 22 April. On 23 April, a recurrent CH HSS is expected to move into geoeffective position causing unsettled to active conditions with continuing quiet to unsettled conditions on 24 April. From 25 - 26 April, another recurrent CH HSS is expected to become geoeffective causing unsettled to active conditions. From 27 April until the end of the forecast period, mostly quiet conditions are expected to prevail.

62. 30 Years Ago: Astronaut W5LFL to Communicate on 2 Meters from Space Shuttle

Newsgroup: rec.radio.amateur.space
Date: 2013-04-20 21:08:38 UTC
From: "Paul W. Schleck" <pschleck@oasis.novia.net>
Message-ID: <5172dbf0$0$81745$540ea2cf@novia.net>
Source record: 39
Cross-posted to: rec.radio.amateur.moderated,rec.radio.amateur.space

```
-----BEGIN PGP SIGNED MESSAGE-----
Hash: SHA1

This is from a web-site that is replaying Usenet, including
net.ham-radio, from 30 years ago (currently early 1983). The site is:

http://www.olduse.net

If you prefer to use your own newsreader, the site also supports an NNTP
connection at:

nntp.olduse.net:119

>From: ad7i <utzoo!decvax!harpo!floyd!vax135!ariel!lime!houxe!hogpc!houxq!houxp!ad7i>
>Subject: ARRL 30: 2 Metre Shuttle Communications
>Newsgroups: net.ham-radio
>Date: Wed Apr 20 08:13:13 1983

qst de ad7i
holmdel, new jersey, u.s.a.
hr arrl bulletin nr 30 from arrl headquarters
newington ct april 18, 1983
to all radio amateurs bt

astronaut owen garriott, w5lfl, will operate an amateur radio station
aboard the next space shuttle mission, scheduled for september 1983.
on april 16, nasa officially approved a joint arrl/amsat proposal to
include an amateur station aboard the sts 9/spacelab flight. the
joint arrl/amsat proposal calls for arrl to furnish the special
amateur radio equipment for use on the shuttle, and to organize and
coach amateurs in procedures for rapid and efficient communications
with the shuttle. this operation, which will be on 2 meter fm, will
mark the first time in the history of space exploration that the
general public will be able to communicate directly with an astronaut
in orbit. details will be forthcoming in qst ar

-----BEGIN PGP SIGNATURE-----
Version: GnuPG v2.0.19 (FreeBSD)

iEYEARECAAYFAlFy27AACgkQ6Pj0az779o5i+ACgjIp/pbDfSuvJvWzEnPQlNgWr
jzkAoJfL2mmyuvmK6aMwluIxQdgCXMmh
=pnLO
-----END PGP SIGNATURE-----
```

63. Re: 30 Years Ago: Astronaut W5LFL to Communicate on 2 Meters from Space Shuttle

Newsgroup: rec.radio.amateur.space
Date: 2013-04-21 00:10:33 UTC
From: Patty Winter <patty1@wintertime.com>
Message-ID: <51732e72$0$52817$742ec2ed@news.sonic.net>
Source record: 40
Cross-posted to: rec.radio.amateur.moderated,rec.radio.amateur.space

In article <5172dbf0$0$81745$540ea2cf@novia.net>,
Paul W. Schleck <pschleck@oasis.novia.net> wrote:
>
>This is from a web-site that is replaying Usenet, including
>net.ham-radio, from 30 years ago (currently early 1983). The site is:
>
> http://www.olduse.net
>
>
>>From: ad7i
>>Subject: ARRL 30: 2 Metre Shuttle Communications
>>Newsgroups: net.ham-radio
>>Date: Wed Apr 20 08:13:13 1983
>
>
>hr arrl bulletin nr 30 from arrl headquarters
>newington ct april 18, 1983
>
>astronaut owen garriott, w5lfl, will operate an amateur radio station
>aboard the next space shuttle mission, scheduled for september 1983.

Here's a photo I took of him as he was about to board the astronaut van.
Turns out that yelling "73, Owen!" can get a ham's attention even at a
moment like this when his mind is on a million other things. ;-)

http://www.wintertime.com/OH/sts9-walkout.jpg

Patty

64. ANS-111 AMSAT News Service Weekly Bulletins

Newsgroup: rec.radio.amateur.space
Date: 2013-04-21 01:45:45 UTC
From: JoAnne Maenpaa <k9jkm@comcast.net>
Message-ID: <000101ce3e31$9ea4e790$dbeeb6b0$@net>
Source record: 41
Cross-posted to: rec.radio.amateur.space,rec.radio.info

AMSAT NEWS SERVICE
ANS-111

The AMSAT News Service bulletins are a free, weekly news and information service of AMSAT North America, The Radio Amateur Satellite Corporation. ANS publishes news related to Amateur Radio in Space including reports on the activities of a worldwide group of Amateur Radio operators who share an active interest in designing, building, launching and communicating through analog and digital Amateur Radio satellites.

The news feed on http://www.amsat.org publishes news of Amateur Radio in Space as soon as our volunteers can post it.

Please send any amateur satellite news or reports to:
ans-editor at amsat.org.

In this edition:

* April 19 Soyuz-2-1B Launch Plans Cubesat Deployment on April 21
* April 21 Antares Launch to Orbit Three PhoneSat Cubesats
* April 25 China CZ-2D to Launch TURKSAT-3USAT Linear Transponder
* May 3 Vega Launch from Kourou to Orbit ESTCube-1 CubeSat
* AMSAT-NA Board of Directors Nominations Solicited
* ARISS School Contacts
* Order AMSAT/TAPR Dayton Banquet Tickets in the AMSAT Store
* Registration for the SA AMSAT Space Symposium is Now Open
* Inspiration and Success: The Story Behind N1LF's 1st Satellite QSO
* RockOn 2013 University Rocket Science Workshop
* Satellite Shorts From All Over

SB SAT @ AMSAT $ANS-111.01
ANS-111 AMSAT News Service Weekly Bulletins

AMSAT News Service Bulletin 111.01
>From AMSAT HQ SILVER SPRING, MD.
April 21, 2013
To All RADIO AMATEURS
BID: $ANS-111.01

****
* Volunteers are needed to help at the AMSAT booth at Dayton. *
* Steve Belter N9IP, is looking for volunteers to help man the *
* AMSAT booth during the 2013 Hamvention. If you are willing *
* to help at the Hamvention, please send an e-mail by April 30 *
* to Steve Belter, n9ip@amsat.org. *

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* *
* Monitor the 'AMSAT at Dayton Hamvention 2013' link on the new *
* AMSAT Web Site http://www.amsat.org for the latest AMSAT at *
* Dayton news and developments *
****************************************************************

----------------------------------------------------------------

April 19 Soyuz-2-1B Launch Plans Cubesat Deployment on April 21

A Soyuz-2-1b from the Baikonur launch facility, in Kazakhstan on
April 19, 2013 now has four cubesat missions using amateur radio
frequencies and three commercial and science missions on-orbit:

Satellite Downlink Mode
---------- --------------- -----------------
OSSI-1 145.980/437.525 CW/1200bps (Amateur Band)
SOMP 437.485 1200, 9600bps BPSK (Amateur Band)
BEESAT-2/3 435.950 4800bps GMSK/Mobitex (Amateur Band)
Bion-M1 Biological research satellites
AIST Measurement of the Earth's geomagnetic field
435 MHz downlink/145 MHz command & control uplink
Dove-2 Commercial technology demonstration mission
450 MHz band downlink

Additional information and photos can be viewed on the AMSAT-UK web:
http://amsat-uk.org/2013/04/17/soyuz-cubesat-launch/

This page includes additional information on the planned deployment
of the cubesats from the P-POD canisters: "Unusually the CubeSats
will not be deployed straight after launch. All four CubeSats:
OSSI-1, BEESAT-3, SOMP, and BEESAT-2 will be deployed around 10:45
UTC on Sunday, April 21. Until then orbital maneuvers will be car-
ried out to achieve a circular orbit at 575 km altitude."

OSSI-1 Deployed on April 19
---------------------------
145.980 MHz CW, 437.525 MHz 1k2

OSSI-1, the Open Source Satellite Initiative satellite is a cubesat
developed by Hojun Song DS1SBO. In addition to the radio beacons
OSSI-1 also carries a 44 watt LED optical beacon to flash Morse Code
messages to observers on Earth.

The development of the satellite has been documented on the Open
Source Satellite Initiative Blog http://opensat.cc/blog/ and the
Wiki http://opensat.cc/wiki/
http://www.youtube.com/watch?v=OL0zSY6cg
AMSAT-UK coverage can be read at:
http://amsat-uk.org/2013/04/19/ossi-1-amateur-radio-cubesat-launched/

BEESAT 3, BEESAT 2, SOMP, AIST and Dove-2 are expected to be separat-
ed from BION M1 in two batches on Sunday, April 21.
```

SOMP

Downlink on 437.485 MHz including CW, 1k2 and 9k6 BPSK, AX25 FSK,
and AO40 standard 400bit/s BPSK

The Student Oxygen Measurement Project (SOMP) is a cubesat developed by students of the Technische Universit�t Dresden, Germany, organized in the Students' Research Group for Spacecraft Engineering in Dresden (STARD). SOMP will be a standard sized single CubeSat with one payload side and five sides with two solar cells each.

http://phpweb.tu-dresden.de/stard/SOMP/?lang=
http://tinyurl.com/SOMP-AMSAT-UK-Posting

BEESAT-2/3 (Berlin Experimental and Educational Satellite)
435.950 MHz, 4k8 GMSK (both satellites)

BEESAT-2 is a cubesat-sized vehicle carries a technology experiment
using gyros and sensors for precise orientation.

BEESat-3 is another cubesat-sized vehicle that will test high-speed
data links (up to 1MB/s).

http://www.raumfahrttechnik.tu-berlin.de/beesat/

The above cubesat missions and the scientific/commercial missions
are also documented on Mineo Wakita's (JE9PEL) web page at:
http://www.ne.jp/asahi/hamradio/je9pel/ossisomp.htm

[ANS thanks AMSAT-UK and Mineo Wakita, JE9PEL for the above information]

April 21 Antares Launch to Orbit Three PhoneSat Cubesats

Three PhoneSat cubesats are now on-orbit following the launch of the Orbital Sciences Corporation Antares(TM) rocket from NASA's Wallops Flight Facility (WFF) in eastern Virginia. The originally scheduled April 17 launch attempt was scrubbed. April 21 is the next planned launch attempt.

All three of the Phonesat cubesats carries an amateur radio payload
on 437.425 MHz. Each cubesat will transmit during individual time
slots. All three satellites transmit using AFSK (1200 bps) modulation, AX.25 packet coding and have vertical linear polarization. The
two PhoneSat 1.0 satellites, Graham and Bell, transmit with a periodicity of respectively 28 seconds and 30 seconds. The PhoneSat 2.0
beta satellite, Alexander, transmit with a periodicity of 25 seconds.

The PhoneSat web at http://www.phonesat.org/ provides access to the
"Dashboard" allowing you to track the location of our satellites in
real time. Detailed information on the downlink packet telemetry
format can be found on this page. The callsign will be KJ6KRW.

The orbit is very low (270km x 300km, 51.6deg) and the cubesats are expected to only remain on-orbit for two weeks. The satellites are battery powered with no additional charging from solar cells.

The Dove-2 commercial satellite is believed to use 2420.0 MHz for its downlink.

[ANS thanks the PhoneSat Team for the above information]

April 25 China CZ-2D to Launch TURKSAT-3USAT Linear Transponder

TAMSAT reports the TURKSAT-3USAT, the first communication nanosatellite mission of ITU, Istanbul Technical University, Istanbul, Turkey is expected to launch on April 25 aboard China's Chang Zheng-2D rocket. Also aboard this launch will be Ecuador's NEE 01 Pegaso 1U cubesat and Argentina's CubeBug-1 satellite.

TURKSAT-3USAT is a three unit CubeSat developed to provide SSB/CW communications in a 680 km Low Earth Orbit. It will fly a V/U linear transponder developed by TAMSAT, the Turkish Amateur Satellite Technologies Organisation.

+ Uplink center frequency 145.965 MHz
(145.940-145.990 MHz bandwidth)
Receive sensitivity -120 dBm

+ Downlink center frequency 435.225 MHz
(435.200-435.250 MHz bandwidth)
Output power 30 dBm (1W)

+ CW beacon on 437.225 MHz

Additional information can be accessed on-line at:
http://www.tamsat.org.tr/tr/turksat-3usat-is-almost-ready/
http://www.uk.amsat.org/?p670

CUBEBUG-1 Heading for Orbit Includes Amateur Radio Digipeater
---
CubeBug-1 is the first technology demonstration mission for a new CubeSat platform design (mechanics, hardware and software) intended to be released as Open Source and Open Hardware for its use in Amateur projects, University projects and research labs.

The project is sponsored by the Argentina Ministry of Science, Technology and Productive Innovation.

Payloads on this first mission include:
+ An ARM based on-board computer
+ A nano-reaction wheel with its driver circuit
+ A low resolution camera
+ All based on COTS components

CubeBug-1 is a 2U CubeSat and the team are planning to use half duplex communications on 437.445 MHz with 9k6 GMSK data. Tele-

metry information is at http://1.cubebug.org/coms/telemetry

After the technology demonstration part of the mission is over, the satellite will enter a mode that will include services to the Amateur radio community, including a Digipeater, science data downloads from the payload (including images if possible).

Watch a CubeBug-1 video at http://vimeo.com/56055215

CubeBug-1 website http://1.cubebug.org/

Follow CubeBug-1 on Twitter @CubeBug1

[ANS thanks AMSAT-UK, the CubeBug Team and TAMSAT for the above information]

May 3 Vega Launch from Kourou to Orbit ESTCube-1 CubeSat

Estonia's first CubeSat ESTCube-1, amateur radio callsign ES5E/S, is planned to launch from the ESA Spaceport in Kourou in the Caribbean on May 3, 2013 aboard an ESA VEGA rocket.

Built by students at the University of Tartu ESTCube-1 the main mission of the satellite is to test electric solar wind sail technology, a novel space propulsion technology that could revolutionalize transportation within the solar system. It will deploy a 10 meter conductive electrodynamic tether and the force interacting with the tether will be measured.

The IARU Amateur Satellite Frequency Coordination Panel have published these frequencies for ESTCube-1:

+ 437.250 MHz – CW beacon, callsign ES5E/S
+ 437.505 MHz – 9600 bps AX.25 telemetry, callsign ES5E-11

More information and a video has been posted at:
http://amsat-uk.org/?p774

Additional news of the launch is posted at:
http://tinyurl.com/April-Vega-Launch (Space-Travel.com)

[ANS thanks AMSAT-UK and the University of Tartu ESTCube-1 Team for the above information]

AMSAT-NA Board of Directors Nominations Solicited

It is time to submit nominations for the upcoming open seats on the AMSAT-NA Board of Directors. A nomination requires either one Member Society or five current individual members in good standing to nominate an AMSAT member for the position. Four director's terms expire this year: Barry Baines, WD4ASW, Alan Biddle, WA4SCA, Drew

Glasbrenner, K04MA, and Tony Monteiro, AA2TX.

In addition to traditional submission of written nominations, which remains unchanged and is the preferred method, nominations may be made by electronic means. These include e-mail, FAX, or electronic image of a petition. Electronic petitions should be sent to MARTHA at AMSAT.ORG or faxed to 301-608-3410. Written nominations, consisting of names, calls and individual signatures should be mailed to: AMSAT-NA, 850 Sligo Ave #600, Silver Spring, MD, 20910. No matter what means is used, petitions MUST arrive no later than June 15th at the AMSAT-NA office. If the nomination is a traditional written nomination, no other action is required. If it is other than this, i.e. electronic, a verifying traditional written petition MUST be received at the AMSAT-NA office at the above address within 7 days following the close of nominations on June 15th. ELECTRONIC SUBMISSIONS WITHOUT THIS SECOND, WRITTEN VERIFICATION ARE NOT VALID UNDER THE EXISTING AMSAT-NA BYLAWS.

[ANS thanks Alan, WA4SCA, AMSAT Corporate Secretary for the above information]

ARISS School Contacts

John McCrae High School, Nepean, Ontario, Canada

The International Space Station school contact with participants at John McCrae High School, Nepean, Ontario, Canada on 17 April was successful. The contact was completed via telebridge between OR4ISS and IK1SLD.

John McCrae Secondary school is named after the Canadian poet and doctor who during World War I, wrote the famous war memorial poem "In Flanders Fields". With this heritage in mind the school hosts large community Remembrance Day ceremonies every November 11 and celebrates community works of art in the "Red Poppy" gallery. John McCrae students consistently rank among the best academic performers in the province, gaining post secondary acceptance across North America and winning many entrance scholarships.

Gray Mountain Primary School, Whitehorse, Yukon, Canada

The International Space Station school contact with participants at Gray Mountain Primary School, Whitehorse, Yukon, Canada on 23 April was successful. The contact was completed via telebridge with IK1SLD.

The incredible opportunity to speak with the ISS and Chris Hadfield has sparked a frenzy of space related themes and ideas throughout the school and inspired the community. The small school has been transformed into a space education station with student-created learning displays and artwork throughout. The kids have been reading and writing using space to inspire imaginations and incorporating space ex-

ploration into math and science lessons. A local artist is coming to build a life size Soyuz spacecraft out of recycled materials with the Grade 2s and 3s.

Upcoming School Contacts This Week:

+ Bates College Museum of Art, Lewiston, ME, telebridge via IK1SLD on Tuesday, April 23 at 14:38:47 UTC.

+ Maani Ulujuk Ilinniarvik (MUI), Rankin Inlet, Nunavut, Canada, telebridge via IK1SLD on Thursday, April 25 at 14:34:36 UTC.

+ Istituto d'Istruzione Superiore Euclide, Bari, Italy, telebridge via IZ7RTN on Saturday, April 27 at 11:17:19 UTC.

ARISS is requesting listener reports for the above contacts. Due to issues with the Kenwood radio that are not fully understood at present, the Ericsson radio is going to be used for these contacts. ARISS thanks everyone in advance for their assistance.

[ANS thanks ARISS for the above information]

Order AMSAT/TAPR Dayton Banquet Tickets in the AMSAT Store

AMSAT Hotel News

Per Martha at the AMSAT Office, the entire block of AMSAT rooms for Hamvention 2013 are now taken, and no more will be available.

Friday Evening AMSAT/TAPR Banquet at Dayton

Tickets for the dinner are $30 each, and must be purchased from the AMSAT Store at http://store.amsat.org/catalog/ by Tuesday, May 14.

The dinner will be held at:

The Kohler Presidential Banquet Center
4548 Presidential Way
Kettering, OH 45429

Doors open at 1830 for a cash bar with buffet dinner served at 1915.

Seating is limited to the number of meals we reserve with the Kohler caterers, based on the number of tickets sold by the deadline. Tickets will not be sold at Dayton, but tickets purchased online may be collected at the AMSAT booth (444-446 and 433-435).

Join us for a fun evening with good food, great company, and an outstanding speaker.

This year's speaker will be Bruce Perens, K6BP, with a humorous history of technology evangelism: "The Evangelist's Dilemma: Driving New Ideas With Nothing But Words." As you can imagine, when you're

promoting new ideas, there are things that inevitably go wrong. Bruce will pull examples from his history with Open Source, No-Code, Software Freedom, Codec2, and Open Hardware, and he'll introduce a few of the new battle grounds.

[ANS thanks AMSAT's 2013 Dayton Committee for the above information]

Registration for the SA AMSAT Space Symposium is Now Open

SA AMSAT will hold its annual space symposium in Pretoria at the Innovation Hub on Saturday 18 May 2012. The keynote speaker will be McLean Sibanda, the CEO of the Innovation Hub with the subject "Innovation is everyone's business". The agenda is packed with interesting presentations and demonstrations. The symposium is sponsored by Telkom.

Make your booking now to benefit from the early registration package. Full details and the registration form are available on http://www.amsatsa.org.za/SpceSymp2013.htm.

SARL and SA AMSAT members enjoy preferential rates. The registration fee includes a CD of all the papers as well as refreshments and a light lunch.

[ANS thanks the SARL News in English for April 13, 2013 for the above information]

Inspiration and Success: The Story Behind N1LF's 1st Satellite QSO

Les Rayburn, N1LF sent a message to the amsat-bb on April 14 which describes his ham radio journey to his first amateur satellite contact via FO-29.

Les wrote:
I've been a ham well over 40 years, since my childhood. Back then, I could barely afford the Heathkit transmitter, Halicrafters receiver, knife switch, and longwire antenna that made up my shack.

My elmer used to let me borrow his copy of QST and I'd dream about all the great adventures that I'd have "someday" in ham radio. Being a child of the Space Age, key among them were anything related to the New Frontier.

EME (Moonbounce), Meteor Scatter, and satellites all seemed like the stuff of science fiction---and I longed to experience them all. But they were exotic, and required equipment far beyond my reach. I resolved to accomplish them all someday and added them to a sort of ham radio "bucket list" that I hoped to accomplish before my ham career was over.

Five years ago, shortly after getting started in weak signal VHF work, I checked off the first item on that list. Working meteor scatter contacts with the aid of WSJT software, and during a Perseid shower, even using SSB. What a thrill to make contacts off the ionized gasses of those tiny rocks. Thanks Joe Taylor!

Tonight, I managed to check off a second. I worked Art, K4YYL on FO-29, a Japanese amateur satellite!

My journey to the "birds" started about a month ago when I joined AMSAT, determined that 2013 was going to be "the year" when I finally got active on satellites. I purchased a copy of SATPC32 software, because I knew that it could control my IC-910H--hopefully making it easier to get active.

After listening to a few passes on both the FM and the SSB/CW birds, I decided to try my luck on the less-crowded FO-29. A brief CQ was quickly answered by Art. I adjusted the tuning knob just a bit to correct for the Doppler effect, and voila! there he was clear as a bell.

We had a brief QSO of perhaps ten minutes or so, and then we signed. I was quickly called by K4FEG near Memphis in EM55---who just wanted to welcome me to the birds!

Man, what a thrill! And it wasn't tough at all.

I'm using a 7 element 432 antenna tilted up to 15 degrees (fixed) and a 6 element 2 Meter beam tilted up to about 10 degrees (fixed) both inside my crowded attic. The SSB Electronics pre-amp helps a ton on 432, and the 1/2" hardline makes sure that I don't lose too much signal. So far, I've been able to copy the birds down to about 2 degrees above the horizon using this setup.

Now to attempt that EME contact! I've got a 12 element Yagi just waiting to deploy in the driveway once the weather warms a bit. Hoping to use WSJT to work one of the monster stations on EME. All this in a deed-restricted HOA neighborhood.

I wasted 35+ years on HF----man, all the fun really is in the World Above 50 MHz! Thanks for helping to make a boy's dreams come true at age 51!

[ANS thanks and congratulates Les Rayburn, N1LF for the above information]

RockOn 2013 University Rocket Science Workshop

U.S. university and community college faculty and students are invited to a weeklong workshop to learn how to build and launch a scientific experiment into space. NASA's Wallops Flight Facility in Virginia is hosting the RockOn 2013 workshop June 15-20, 2013, in partnership with the Colorado and Virginia Space Grant Consortia.

Workshop participants must be U.S. citizens. The registration dead line for the workshop is May 1, 2013.

The hands-on workshop teaches participants to build experiments that fly on sounding rockets. During the week, participants will work together in teams of three to construct and integrate a sounding rocket payload from a kit. On the fifth day of the workshop, the experiments will fly on a sounding rocket expected to reach an altitude of more than 70 miles.

Each experiment will provide valuable scientific data, analyzed as part of the student-led science and engineering research. The program engages faculty and students in science, technology, engineering and mathematics skills critical to NASA's future engineering, scientific and technical missions.

For more information about RockOn and to register online, visit: http://spacegrant.colorado.edu/national-programs/rockon-2013-home

Questions about the workshop or the registration process should be directed to Chris Koehler by email at koehler@colorado.edu or by telephone at 303-492-3141.

[ANS thanks the NASA Education Express Message -- April 18, 2013 for the above information]

Satellite Shorts From All Over

+ A web-based Software Defined Radio for the 5, 7 and 14 MHz bands is now available on the new RSGB website. The "Web SDR receiver" link can be found under the "MyRSGB" drop-down menu. Also on the new site are "Live DX Cluster" and "Live solar data" pages under the "News" drop-down menu. See: http://www.rsgb.org/

+ The Florida Today newspaper published a story about the Merritt Island High School CubeSat project called StangSat. See: http://amsat-uk.org/2013/04/11/merritt-island-high-students-cubesat/

+ Video from the CanSat Leader Training Program is posted at: http://www.youtube.com/watch?v=K3dLrUmEQ&feature=player_embedded CanSats are tiny satellites, built to fit in the same space as a soda-can. UNISEC is running a training program in Japan later this year, to train people on how to build and teach building of these ingenious devices. See: http://www.unisec.jp/flash/index-e.html (via Southgate)

+ NASA has posted videos celebrating Earth Month and specifically Earth Day (April 22) from ISS imagery: http://www.youtube.com/watch?feature=player_embedded&v=Q0Hene1LY Another Earth Month video from satellite imagery is posted at: http://www.youtube.com/watch?v=c8Ozis-mo&feature=player_embedded

+ The Goddard Space Flight Center posted the best views of Earth
from space in the last year, including true color satellite images,
Earth science data visualizations, time lapses from the Interna-
tional Space Station, and computer models:
http://www.youtube.com/watch?feature&#65533;ayer_embedded&v&#65533;kOSMf-LpY

+ Two UrtheCast cameras - one medium-resolution still camera and one
high-resolution video camera are planned for launch on the Progress
53P cargo supply mission on October 16, 2013. The cameras will be
installed on the Zvezda Service Module of the Russian segment of
the ISS, during its crew spacewalks. Soon after installation,
Earth imagery and video will begin transmitting to ground stations
across the globe via an existing high-speed downlink from the ISS,
then streamed to the web. Read the full story at:
http://spaceref.com/news/viewpr.html?pid@490

[ANS thanks everyone for the above information]

/EX

In addition to regular membership, AMSAT offers membership in the
President's Club. Members of the President's Club, as sustaining
donors to AMSAT Project Funds, will be eligible to receive addi-
tional benefits. Application forms are available from the AMSAT
Office.

Primary and secondary school students are eligible for membership
at one-half the standard yearly rate. Post-secondary school students
enrolled in at least half time status shall be eligible for the stu-
dent rate for a maximum of 6 post-secondary years in this status.
Contact Martha at the AMSAT Office for additional student membership
information. And with that please keep in mind that the integral of
(1/cabin)d(cabin) is a natural log cabin, of course!

73,
This week's ANS Editor,
JoAnne Maenpaa, K9JKM

65. Weekly Highlights of Solar and Geomagnetic Activity, 15 - 21 April 2013

Newsgroup: rec.radio.amateur.space
Date: 2013-04-22 15:30:07 UTC
From: SWPC.Webmaster@noaa.gov
Message-ID: <20130422153001.83B1033C7E@panix2.panix.com>
Source record: 42
Cross-posted to: rec.radio.amateur.misc,rec.radio.amateur.dx,rec.radio.amateur.space,rec.radio.shortwave,rec.radio.info

```
:Product: Weekly Highlights and Forecasts
:Issued: 2013 Apr 22 0431 UTC
# Prepared by the US Dept. of Commerce, NOAA, Space Weather Prediction Center
# Product description and SWPC contact on the Web
# http://www.swpc.noaa.gov/weekly.html
#
# Weekly Highlights and Forecasts
#
Highlights of Solar and Geomagnetic Activity
15 - 21 April 2013

Solar activity was at low levels during the period. The first half
of the period (15 - 18 April) was dominated with mostly low-level
C-class activity from Regions 1719 (N11, L=077, class/area Eki/290
on 12 April) and 1723 (S18, L=001, class/area Dai/200 on 17 April).
The largest event during this time frame was a long duration C6 at
18/1823 UTC from Region 1719. Associated with the event was a Type
II signature with an estimated plane-of-sky speed of 1273 km/s and a
coronal mass ejection (CME) observed off the west limb. The
remainder of the period (19 - 21 April) witnessed the rapid
emergence on the disk of Region 1726 (N12, L=326, class/area Ekc/260
on 21 April). During this time frame, Region 1726 produced a total
of 20 C-class flares. The largest flare was a C4/Sf at 21/1838 UTC.
At the time of this report, Region 1726 was continuing its growth
phase and maintaining its complex beta-gamma-delta magnetic
configuration.

No proton events were observed at geosynchronous orbit. However, the
greater than 10 MeV proton flux increased slightly above background
levels beginning at about 21/1005 UTC and peaked at about 3 pfu at
21/1640 UTC. The enhancement was likely triggered by activity beyond
the west limb from old Region 1719 (N11, L=077).

The greater than 2 MeV electron flux at geosynchronous orbit was at
normal to moderate levels.

Geomagnetic field activity was at predominately quiet levels with an
isolated unsettled reading observed during the period 15/1800 - 2100
UTC. The period began under the waning influence of a weak CME.
Solar wind speeds were at mostly nominal levels, beginning the
period near 450 km/s and exhibited a steady decline to end the
period at about 285 km/s. Total interplanetary magnetic field (IMF)
readings ranged from a high of 12 nT early on 15 April, declined to
4 nT by early on 16 April and varied between 4 - 6 nT for the
```

remainder of the period. The Bz component of the IMF ranged from +11 nT early on 15 April and declined to about +5 nT by midday on 15 April. Through the remainder of the period, Bz did not vary much beyond +/-4 nT. The Phi angle was in a negative (toward) orientation through early on 16 April and switched to a predominately positive (away) orientation through about 20/1900 UTC when it became variable through the remainder of the period.

Forecast of Solar and Geomagnetic Activity
22 April - 18 May 2013

Solar activity is expected to be at predominately low levels through the outlook period. A chance for M-class activity and a slight chance for x-class activity exists due to active regions that currently populate the visible disk and active regions due to rotate onto the disk throughout the outlook period.

A slight chance for a 10 MeV proton event at geosynchronous orbit is possible due to active regions that currently populate the visible disk and active regions due to rotate onto the disk throughout the outlook period..

The greater than 2 MeV electron flux at geosynchronous orbit is expected to be at moderate to high levels from 24 April - 02 May in the wake of a coronal hole high speed stream (CH HSS). Normal to moderate levels will predominate from 03 - 18 May.

Geomagnetic field activity is expected to be at quiet to unsettled levels on 22 April in response to a possible glancing blow from the 18 April CME. Mostly unsettled to active levels with isolated minor storm periods are possible from 23 - 26 April due to recurrent (CH HSS) effects. Predominately quiet levels are expected from 27 April - 18 May.

66. WSR-112 AMSAT Weekly Satellite Report

Newsgroup: rec.radio.amateur.space
Date: 2013-04-22 23:57:30 UTC
From: JoAnne Maenpaa <k9jkm@comcast.net>
Message-ID: <002901ce3fb4$d30b4f40$7921edc0$@net>
Source record: 43
Cross-posted to: rec.radio.amateur.space,rec.radio.info

```
This report is organized into three (3) parts.
Part 1 (S1) - operational analog amateur satellites
Part 2 (S2) - operational digital amateur satellites
Part 3 (S3) - non - operational satellites

SB SAT @ AMSAT W8ISS $WSR-112.S1
WSR 112 Part 1 04/22/2013

AMSAT NEWS SERVICE BULLETIN 112.S1
FROM AMSAT HQ SILVER SPRING, MD, April 22, 2013
TO ALL RADIO AMATEURS
BID: $WSR-112.S1

PW-Sat
Catalog Number: 38083
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: On Orbit

Uplink: 435.020 MHz FM
Downlink: 145.900 MHz DSB

Beacon:

Callsign:

URL:

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=132
[02112013]
=====
DO-64 Delfi-C3
Catalog number: 32789
Launch Date: April 28, 2008 0354z
Launch site: Satish Dhawan Space Centre, India

Status: Operational
Current Mode: Science Mode - Beacon ONLY

Telemetry: 145.870 MHz

Downlink: 145.880 to 145.920 MHz
Uplink: 435.530 to 435.570 MHz

Delfi-C3 web page: http://www.delfic3.nl/
```

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=68
[02112013]
=====
VO-52 HAMSAT
Catalog number: 28650
Launch Date: May 05, 2005 0444z
Launch site: Satish Dhawan Space Centre, India

Status: Operational
Current Mode: U/v - Dutch Transponder

Frequencies:
Indian Transponder:
Uplink: 435.220 to 435.280 MHz LSB/CW
Downlink: 145.930 to 145.870 MHz USB/CW

Dutch Transponder:
Uplink: 435.225 to 435.275 MHz LSB/CW
Downlink: 145.925 to 145.875 MHz USB/CW

Indian Beacon: 145.9360 MHZ CW
Dutch Beacon: 145.860 MHz 12WPM with CW message

Mode and Antenna Polarization:
V: LHCP
U: RHCP

Official Webpage: http://www.amsatindia.org/hamsat.htm

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=30

To know what transponder is switched on please listen for the beacon
that is active. Each transponder has a different beacon.
[02112013]
=====
SO-50 SAUDISAT-1C
Catalog number: 27607
Launch date: December 20, 2002 1700z
Launch site: Baikonur, Kazakhstan

Status: Operational

Current Mode: V/u

Uplink: 145.850 MHz FM - 67.0 Hz PL tone
Downlink: 436.795 MHz

Mode and Antenna Polarization:
V: Linear
U: Linear

Official Webpage: http://saudisat.kacst.edu.sa/index.shtml
(not up and running currently)

To switch the transmitter on, you need to send a CTCSS tone of 74.4
Hz. The order of operation is thus: (allow for Doppler as necessary):
1) Transmit on 145.850 MHz with a tone of 74.4 Hz to arm the 10 minute
timer on board the spacecraft.
2) Now transmit on 145.850 MHz (FM Voice) using 67.0 Hz to PT the re-
peater on and off within the 10 Minute window.
3) Sending the 74.4 tone again within the 10 minute window will reset
the 10 minute timer.
[02112013]
=====
FO-29 JAS-2
Catalog number: 24278
Launch Date: August 17, 1996

Status: Operational
Current Mode: V/u (Mode JA)

Voice/CW (Mode JA)
Uplink: 145.90 to 146.00 MHz CW/LSB
Downlink: 435.80 to 435.90 MHz CW/USB
Beacon: 435.795 MHz

Digital Mode JD
Uplinks: 145.850 MHz FM
145.870 MHz FM
145.910 MHz FM
Downlink: 435.910 MHz 1200-baud BPSK or 9600-baud FSK
Callsign: 8J1JCS
Digitalker: 435.910 MHz

Mode and Antenna Polarization:
V: RHCP
U: RHCP

For current operational schedule for FO-29:
http://www.ne.jp/asahi/m-arai/gkz/satinfo/fo29e.htm

JARL English webpage:
http://www.jarl.or.jp/English/5_Fuji/ejasmenu.htm

AMSAT-NA Webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID
=5&retURL=/satellites/status.php

Mineo Wakita, JE9PEL, has created a simple decoder program for FO29's
CW telemetry downlink: http://www.ne.jp/asahi/hamradio/je9pel/
fo29cwts.htm
[02112013]
=====
AO-7 AMSAT OSCAR 7
Catalog number: 07530
Launch Date: November 15, 1974
Launch site: Vandenberg AFB, California, USA

Status: Operational

Current Mode: Alternating between Mode A and B every 24 hours

Uplink: 145.850 to 145.950 MHz CW/USB Mode A
432.125 to 432.175 MHz CW/LSB Mode B
Downlink: 29.400 to 29.500 MHz CW/USB Mode A (1W PEP)
145.975 to 145.925 MHz CW/USB Mode B (8W PEP)
145.975 to 145.925 MHz CW/USB Mode C (2W PEP)
Beacons: 29.502 MHz CW
145.972 MHz CW
435.100 MHz CW
2304.100 MHz CW

Official Webpage:
http://www.amsat.org/amsat-new/satellites/sat_summary/ao7.php
[02112013]
=====
INTERNATIONAL SPACE STATION (ISS) - ARISS
Catalog number: 25544
Launch date: November 20, 1998 0640z (ZARYA module)
Launch sites: Baikonur, Kazakhstan
Kourou, French Guiana
Uchinoura Space Center, Japan
Kennedy Space Center, Titusville, Florida, USA

Status: Operational

Current Active Modes: FM Repeater - OFF
Voice - V/v
BBS - V/v
2m APRS - V/v
2m Digi - V/v
70cm APRS - ?
70cm Digi - ?
SSTV - V/v

Expedition 35 Crew (March 2013 - September 2013):
Commander: Chris Hadfield KC5RNJ/VA3OOG
Flight Engineer: Tom Marshburn KE5HOC
Flight Engineer: Roman Romanenko
Flight Engineer: Aleksandr Misurkin
Flight Engineer: Pavell Vladimirovich RV3BS
Flight Engineer: Christopher Cassidy KF5KDR

Available Modes and Frequencies:
Digital/APRS:
Worldwide 2m packet uplink: 145.825 MHz FM 1k2
Worldwide 2m packet downlink: 145.825 Mhz FM 1k2
Worldwide 70cm packet uplink: 437.550 Mhz FM 1k2
Worldwide 70cm packet downlink: 437.550 Mhz FM 1k2

Voice:
Region 1 voice uplink: 145.200 MHz FM

Region 2/3 voice uplink: 144.490 MHz FM
Worldwide downlink: 145.800 MHz FM

Crossband Repeater:
Repeater Uplinks: 1269.650 MHz FM
437.800 MHz FM
145.990 MHz FM - 67.0 PL (Kenwood)
Repeater Downlink: 145.800 MHz FM
437.800 MHz FM (Kenwood)

SSTV Robot 36:
Downlink: 145.800 MHz FM

Mode and Antenna Polarization:
V: Linear
U: Linear

Callsigns:
Belgian: OR4ISS
German: DP0ISS
Russian: RS0ISS
RZ3DZR
United States: NA1SS
2m Packet Mailbox: RS0ISS-11
2m Digipeater alias: ARISS
70cm Packet Mailbox: RS0ISS-1
70cm Digipeater callsign: RS0ISS
70cm Digipeater alias: ARISS

Official ARISS Webpage: http://www.rac.ca/ariss
ISS Fan Club Webpage: http://www.issfanclub.com
APRS tracking page: http://www.ariss.net/

ISS Daily Crew Schedule: http://spaceflight.nasa.gov/station/timelines
Remember that the crew operates on UTC time. Also, all of the time
line is NOT translated from Russian and posted.
[04082013]
NNNN
/EX

SB SAT @ AMSAT W8ISS $WSR-112.S2
WSR 112 Part 2 04/22/2013

AMSAT NEWS SERVICE BULLETIN 112.S2
FROM AMSAT HQ SILVER SPRING, MD, April 22, 2013
TO ALL RADIO AMATEURS
BID: $WSR-112.S2

STRaND-1
Catalog Number:
Launch Date: February 25, 2013 12:31z
Launch Site: Satish Dhawan Space Centre, India

Status: Operational

Uplink:
Downlink:437.568MHz 9k6 FSK

Beacon: None(?)

Callsign:

URL: http://www.sstl.co.uk/Missions/STRaND-1--Launched-2013
[03042013]
=====
Fitsat-1
Catalog number: 38853
Launch Date: October 04, 2012
Launch site: Kibo Japanese Experiment Module, International Space
Station

Status: Operational

Uplink:
Downlink(s): 437.445MHz 1k2 AFSK
5840.00 MHz 115k2 data
LED CW (200w pulses)

Beacon(s): 437.250 MHz CW

Callsign: NIWAKA

URL: http://carpcomm.com/satellite/fitsat1
[10292012]
=====
TechEdSat
Catalog number: 38854
Launch date: October 04, 2012
Launch site: Kibo Japanese Experiment Module, International Space
Station

Uplink(s):
Downlink(s): 437.465 1k2 AFSK

Beacon(s):

Callsign:

URL:http://www.techedsat.com/
[10152012]
=====
We Wish
Catalog number: 38856
Launch date: October 04,2012
Launch Site: Kibo Japanese Experiment Module, International Space
Station

Uplink(s):
Downlink(s): 437.505MHz 1k2 AFSK

437.505MHz SSTV

Beacon(s): 437.505MHz CW

Callsign: JQ1ZIJ

URL:
[10152012]
=====
F-1
Catalog number: 38855
Launch Date: October 04, 2012
Launch Site: Kibo Japanese Experiment Module, International Space
Station

Uplink(s):
Downlink(s): 145.980MHz 1k2 AFSK
437.485MHz FM moduled CW

Baecon(s):

Callsign: XV1VN

URL: http://fspace.edu.vn/
[10152012]
=====
Aeneas
Catalog Number: 38760
Launch Date: September 13, 2012 2139z
Launch Site: Wallops Island, Virginia, USA

Status: On Orbit

Uplink: WiFi 2425MHz
Downlink:
WiFi: 2425MHz
Spread Spectrum: Somewhere in the 70cm band

Beacon: 437.600MHz 1k2 ax25 every 10 seconds

Callsign:

URL:
[10012012]
=====
CSSWE (Colorado Student Space Weather Experiment)
Catalog Number: 38761
Launch Date: September 12, 2012 2139z
Launch Site: Wallops Island, Virginia, USA

Status: On Orbit

Uplink:
Downlink: 437.345MHz 9k6 with ax.25

Beacon:

Callsign:

URL:
[10012012]
=====
CP5 (Polysat)
Catalog Number: 38763
Launch Date: September 12, 2012 2139z
Launch Site: Wallops Island, Virginia, USA

Status: On Orbit

Uplink:
Downlink: 437.405MHz AFSK on LSB ax.25 over NRZI at 1k2 baud,
every 2
minutes, begins 3.5 hours after first turn-on

Beacon:

Callsign:

URL:
[10012012]
=====
CXBN (Cosmic X-Ray Background Nanosatellite)
Catalog Number: 38762
Launch Date: September 12, 2012 2139z
Launch Site: Wallops Island, Virginia, USA

Status: On Orbit

Uplink:
Downlink: 437.525MHz GFSK ax.25

Beacon:

Callsign:

URL:
[10012012]
=====
Proiteres
Catalog Number: 38756
Launch Date: September 09, 2012 2139z
Launch Site: Satish Dhawan Space Centre, India

Status: On Orbit

Uplink:
Downlink: 437.485MHz FM/AFSK

Beacon:

Callsign: JL3YZK

URL:
[10012012]
=====
RS-40 MiR (Yubileiny-2)
Catalog Number: 38735
Launch Date: July 28, 2012
Launch Site: Plesetsk Missile and Space Complex, Russia

Status: On Orbit

Uplink:
Downlink(s): 435.265 MHz
435.365 MHz

Beacon:

Callsign:

URL:
[08272012]
=====
HORYU-II
Catalog number: 38340
Launch Date: May 17, 2012 1639z

Status: On Orbit

Uplink: 145.??? MHz
Downlink: 437.375 MHz CW/AX25/FSK

Beacon: 437.375 MHz CW

Callsign: JG6YBW

URL:

IARU Coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=216
[10012012]
=====
XaTcobeo
Catalog Number: 38082
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: Operational

Uplink:
Downlink: 437.365 MHz FFSK with AX.25

Beacon:

Callsign:

URL:

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=135
[100162012]
=====
UniCubeSat
Catalog Number: 38085(?)
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: Operational

Uplink:
Downlink: 437.305 MHz 9k6 bps GMSK

Beacon:

Callsign:

URL:
http://www.gaussteam.com/index.php?option=com_content&view=article&id=
96:unicu
besat&catid=36:unicubesat&Itemid=183

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=133
[10012012]
=====
Robusta
Catalog Number: 38083(?)
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: On Orbit

Uplink:
Downlink: 437.325 MHz 1k2 FM telemetry (data every 3 min, 20 sec.
burst)

Beacon:

Callsign:

URL:

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=122
[10012012]
=====
MO-72 MaSat-1
Catalog Number: 38081
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: Operational

Uplink:
Downlink: 437.345 MHz GFSK 625/1250 bps
437.345 MHz CW

Beacon:

Callsign:

URL:

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=126
[10012012]
=====
Goliat
Catalog Number: 38084(?)
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: Operational

Uplink:
Downlink: 437.485 MHz 1k2 AFSK

Beacon:

Callsign:

URL:

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=98
[10012012]
=====
E-St@r
Catalog Number: 38079
Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: On Orbit

Uplink:
Downlink: 437.445 MHz 1k2 bps AFSK

Beacon:

Callsign:

URL:

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=130
[10012012]
=====
ALMASat-1
Catalog Number: 38078

Launch Date: Febrauary 13, 2012 1000z
Launch Site: Kourou, French Guiana

Status: On Orbit

Uplink:
Downlink: 437.465 MHz 1k2 bps FSK
2407.850 MHz

Beacon:

Callsign:

URL:

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=39
[10012012]
=====
RS-39 Chibis-M
Catalog Number: 38051
Launch Date: October 30, 2011 10:11:00 UTC
Launch site: Tyuratam (Baikonur Cosmodrome), Kazakhstan

Status: Operational

Uplink:
Downlink:

Beacon: 435.315 MHz CW
435.215 MHz CW

Callsign:

URL:

IARU coordination status page:
[07302012]
=====
JUGNU
Catalog Number: 37839
Launch Date: October 12, 2011 05:30:00 UTC
Launch site: Satish Dhawan Space Centre, India

Status: On Orbit

Uplink: 145.??? MHz 1k2 (mode?)
Downlink: 437.505 MHz 9k6 (mode?)

Beacon: 437.275 MHz 15 wpm (?) CW

Callsign:

URL: http://www.iitk.ac.in/me/jugnu/index.htm

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=160
[07092012]
=====
SRMSAT
Catalog Number: 37841
Launch Date: October 12, 2011 05:30:00 UTC
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Uplink: 145.900 MHz 1k AX.25 (speed?)
Downlink: 437.500 MHz 2k4 AX.25

Beacon: 437.425 MHz 12 wpm CW

Callsign:

URL: http://srmsat.in/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=181
[01282013]
=====
HRBE (E1P Explorer 1 [Prime] CubeSat (E1P-U2))
Catalog Number: 37855
Launch Date: October 28, 2011
Launch site: Vandenberg Air Force Base, California, USA

Status: On Orbit

Uplink: 437.305 MHz (???)
Downlink: 437.505 MHz AX.25 (SSB?)

Beacon:

Callsign:

URL: http://ssel.montana.edu/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=116
[01122012]
=====
M-Cubed
Catalog Number: 37855
Launch Date: October 28, 2011
Launch site: Vandenberg Air Force Base, California, USA

Status: On Orbit

Uplink:
Downlink: 437.485 MHz AX.25

Beacon:

Callsign:

URL: http://umcubed.org/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=215
[01122012]
=====
RAX-2
Catalog Number: 37853
Launch Date: October 28, 2011
Launch site: Vandenberg Air Force Base, California, USA

Status: Operational

Uplink:
Downlink: 437.345MHz 9k6 GMSK

Beacon:

Callsign:

URL: http://rax.engin.umich.edu//

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=221
[03232012]
=====
AO-71 AubieSat-1
Catalog Number: 37854
Launch Date: October 28, 2011
Launch site: Vandenberg Air Force Base, California, USA

Status: On Orbit

Uplink:
Downlink: 437.475 MHz 1k2 AX.25

Beacon: 437.475 MHz CW

Callsign: KI4NQO

URL: http://www.space.auburn.edu/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=148
[12262011]
=====
O/OREOS
Catalog Number: 37224
Launch Date: November 20, 2010
Launch site: Kodiak Launch Complex, Alaska, USA

Status: On Orbit

Uplink:
Downlink: 437.035 MHZ AX.25

Beacon:

Callsign:

URL: http://www.ooreos.org/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=146
[02092011]
=====
Rax-1 Radio Aurora Explorer
Catalog Number: 37223
Launch Date: November 20, 2010
Launch site: Kodiak Launch Complex, Alaska, USA

Status: On Orbit

Uplink:
Downlink: 437.505 MHz 9k6 GMSK

Beacon:

Callsign: RAX-1

URL: http://rax.engin.umich.edu/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=165
[02092011]
=====
FO-69 Fastrac-1 Sara Lily
Catalog Number: 37227
Launch Date: November 20, 2010
Launch site: Kodiak Launch Complex, Alaska, USA

Status: Operational

Uplink 1: 145.980 MHz 1k2 baud
Uplink 2: 145.825 MHz 1k2 baud
Downlink: 437.345 MHz 1k2 and 9k6 baud

Beacon: 437.435 MHz 1k2 AX.25

Callsign: Fast1

URL: http://fastrac.ae.utexas.edu/index.php

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=83
[07052011]
=====
FO-70 Fastrac-2 Emma
Catalog Number: 37380

Launch Date: November 20, 2010
Launch site: Kodiak Launch Complex, Alaska, USA

Status: Operational

Uplink 1: 435.025 MHz 1k2 baud
Uplink 2: 437.435 MHz 9k6 baud
Downlink: 145.825 MHz 1k2 and 9k6 baud

Beacon: 145.825 MHz 1k2 AX.25

Callsign: Fast2

URL: http://fastrac.ae.utexas.edu/index.php

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=84
[12162011]
=====
StudSat
Catalog Number: 36796
Launch Date: July 12, 2010 0352z
Launch site: Satish Dhawan Space Centre, India

Status: On Orbit

Uplink: 437.505MHz, 9600bps FSK
Downlink: 437.505MHz, 9600bps FSK
Beacon : 437.505MHz, 20bps ASK

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=164
[02092011]
=====
TIsat-1
Catalog Number: 36799
Launch Date: July 12, 2010 0352z
Launch site: Satish Dhawan Space Centre, India

Status: On orbit

Callsign: HB9DE

Uplink: 145.980MHz FM, AFSK
Downlink: 437.305MHz FM, AFSK
Beacon: 437.305MHz CW

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=118
[02092011]
=====
SwissCube
Catalog Number: 35932
Launch Date: September 23, 2009 0621z

Launch site: Satish Dhawan Space Centre, India

Status: Operational

Callsign: HB9EG

Beacon(100mw): 437.5050MHz CW
Beacon(1w): 437.5050MHz FSK 1k2bps

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=109
[02092011]
=====
UWE-2
Catalog Number: 35934
Launch Date: September 23, 2009 0621z
Launch site: Satish Dhawan Space Centre, India

Status: In Orbit

Beacon(500mw): 437.3850 MHz AFSK 1k2bps
437.3850 MHz FSK 9k6bps

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=110
[02092011]
=====
ITUpsAT1
Catalog Number: 35935
Launch Date: September 23, 2009 0621z
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Beacon(100mw): 437.325MHz CW
Beacon(1w): 437.325MHz 19k2bps

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=113
[02092011]
=====
BEESAT
Catalog Number: 35933
Launch Date: September 23, 2009 0621z
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Callsign: DP0BEE

Beacon(100mw): 436.000MHz CW
Beacon(500mw): 436.000MHz GMSK 4k8bps
Beacon(500mw): 436.000MHz GMSK 9k6bp
[02092011]

=====
SOHLA-1 (ASTRO TECH.)
Catalog Number: 33496
Launch Date: January 23, 2009 0354z
Launch site: Tanegashima Space Center, Japan

Status: Operational

Proposed Frequencies and Modes:
Downlink: 437.505 MHz AFSK/CW
Beacon: 437.505 MHz AFSK/CW

Callsign:

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=101
[02092011]
=====
KAGAYAKI (Solan Co.)
Catalog Number: 33495
Launch Date: January 23, 2009 0354z
Launch site: Tanegashima Space Center, Japan

Status: In Orbit

Downlink: 437.375 MHZ FSK9k6/CW
Beacon: 437.375 MHz FSK9k6/CW

IARU coordination status page:

AMSAT-NA webpage:

[02092011]
=====
STARS (Kagawa Univ.) (Twin Satellites)
Catalog Number: 33498
Launch Date: January 23, 2009 0354z
Launch site: Tanegashima Space Center, Japan

Status: Operational ?

Downlinks: 437.485 MHz FM/CW
437.465 MHz FM/CW
Beacons: 437.305 MHz FM/CW
437.275 MHz FM/CW

Callsigns: JR5YBN
JR5YBO

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=99

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=121&retURL
=/satellites/status.php

[02092011]
=====
KKS-1 (Tokyo MCIT)
Catalog Number: 33499
Launch Date: January 23, 2009 0354z
Launch site: Tanegashima Space Center, Japan

Status: Operational

Downlink: 437.455 MHz AFSK/CW
Beacon: 437.385 MHz AFSK/CW

Callsign: JQ1YYY

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=107

AMSAT-NA webapge:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=120&retURL
=/satellites/status.php
[20092011]
=====
PRISM (Tokyo Univ.)
Catalog Number: 33493
Launch Date: January 23, 2009 0354z
Launch site: Tanegashima Space Center, Japan

Status: Operational

Uplink: 145.xxx MHz AFSK 1k2
Downlink: 437.425 MHz AFSK 1k2
Beacon: 437.250 MHz CW

Callsign: JQ1YCX

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=97

Read terms and conditions of operations at the PRISM web page to find
out how
to properly operate on the satellite and to get the uplink frequency.
It
has
been asked that the uplink frequency not be given out untik you have
read and
understood the terms of usage.

URL:
http://www.space.t.u-tokyo.ac.jp/prism/en/HAMservice.html
[10282012]
=====
RS-30 Radio Sputnik 30 (Yubileiny)
Catalog Number: 32953
Launch Date: May 23, 2008 1520z

Launch site: Plesetsk Missile and Space Complex, Russia

Status: Operational

Curent Modes: Telemetry
Audio
Images

Downlinks: 435.315 MHz
435.215 MHz

AMSAT-NA website:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=115&ret
URL=/satellites/status.php

Official website:
http://www.npopm.com/?cid=leoca&caid=43
[02092011]
=====
CanX-2
Catalog number: 32790
Launch Date: April 28, 2008 0354z
Launch site: Satish Dhawan Space Centre, India

Status: Operational in range of ground station only

Downlink: 437.478 MHz GFSK

For the latest project status update please visit the Can X-2 web
page: http://www.utias-sfl.net/nanosatellites/CanX2/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=46
[02092011]
=====
AAUSAT-II
Catalog number: 32788
Launch Date: April 28, 2008 0354z
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Downlink: 437.425 MHz 1k2 baud packet

For the latest project status update please visit the AAUSAT-II web
page:
http://www.aausatii.aau.dk/homepage/index.php?language=en&page=home

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=60
[02092011]
=====
CO-65 CUTE-1.7+APD II
Catalog number: 32785

Launch Date: April 28, 2008 0354z
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Downlink: 437.475 MHz 9k6 Packet
Uplink: 1267.600 Mhz

Telemetry Beacon:
Downlink: 437.2750 MHz CW

For the latest project status update please visit the Cute-1.7+APD II
web page: http://lss.mes.titech.ac.jp/ssp/cute1.7/index_e.html

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=78

Command Station blog website:
http://lss.mes.titech.ac.jp/ssp/cute1.7/blog/

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=112&retURL
=/satellites/status.php
[03232012]
=====
Compass-1
Catalog number: 32787
Launch Date: April 28, 2008 0354z
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Current Mode: dependant on last received command

Uplink: 145.980 MHz FM
Downlink: 437.275 Mhz CW
437.405 MHz Packet

For the latest project status update please visit the Compass 1 web
page: http://www.raumfahrt.fh-aachen.de/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=52

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=114&retURL
=/satellites/status.php
[06162011]
=====
CO-66 Seeds II
Catalog number: 32791
Launch Date: April 28, 2008 0354z
Launch site: Satish Dhawan Space Centre, India

Status: Operational

Downlink: 437.485 MHz

Callsign: JQ1YGU

For the latest project status update please visit the Seeds 2 web
page: http://cubesat.aero.cst.nihon-u.ac.jp/english/seeds_2_e.html

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=36

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=113&retURL
=/satellites/status.php
[073092011]
=====
CAPE-1
Catalog Number: 31130
Launch Date: April 17,2007 0702z
Launch site: Baikonur, Kazakhstan

Status: Intermittent

Current Mode: /u

TLM Downlink: 435.245 MHz 9600 bs FSK AX.25
CW Beacon: 435.245 MHz CW

Callsign: K5USL

TLM and CW interchange every 30 seconds.

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=94&retURL=
/satellites/status.php

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=72
[02092011]
=====
CP3
Catalog Number: 31129
Launch Date: April 17,2007 0702z
Launch site: Baikonur, Kazakhstan

Status: Operational

Current Mode: /u

Downlink: 436.845 MHz 1200 bps AFSK AX.25

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=74
[02092011]
=====
CO-58 CubeSat XI-V
Catalog number: 28895

Launch Date: October 27, 2005 0652z
Launch site: Plesetsk Missile and Space Complex, Russia

Status: Operational - CW Beacon only

Current Mode: /u

Telemetry Downlink: 437.4250 MHz AFSK 1200bps using AFK protocol
Beacon: 437.2750 MHz CW

Callsign: JQ1YGW

Official Webpage: http://www.space.t.u-tokyo.ac.jp/cubesat/mission/V/

Pictures received by Mineo Wakita - JE9PEL:
http://www.ne.jp/asahi/hamradio/je9pel/xivpicte.htm

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=37
[02092011]
=====
CO-57 CubeSat XI-IV
Catalog number: 27848
Launch date: June 30, 2003 1415z
Launch site: Plesetsk Missile and Space Complex, Russia

Status: ?????

Current Mode: /u

Beacon: 436.8475 MHz CW
Telemetry : 437.4900 MHz AFSK 1200 BPS

Callsign: JQ1YGW

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=96&retURL
=/satellites/status.php

Official Webpage: http://www.space.t.u-tokyo.ac.jp/cubesat/mission/V/
[02092011]
=====
QuakeSat
Catalog Number: 27845
Launch Date: June 30, 2003 1415z
Launch site: Plesetsk Missile and Space Complex, Russia

Status: Telemetry only

Current Mode: 9600 baud data packet

Mode U packet
Downlink: 436.675 MHz 9k6 BPS

Quakesat webpage:
http://www.quakefinder.com/services/quakesat-ssite/

[02252011]
=====
CO-55 Cute-1.7+APD II
Catalog Number: 27844
Launch date: June 30, 2003 1415z
Launch site: Plesetsk Missile and Space Complex, Russia

Status: Operational

Current Mode: CW downlink worldwide
AX25 Packet with uplink command over Japan only

Mode U Telemetry
Downlink: 437.4000 MHz AFSK 1200 BPS

Mode U TLM Beacon
Downlink: 436.8375 MHz CW

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=69&retURL
=/satellites/status.php

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=78
[02092011]
=====
NO-44 PCSAT
Catalog number: 26931
Launch Date: September 30, 2001 0240z
Launch site: Kodiak Launch Complex, Alaska, USA

Status: Operational

Current Mode: V/v

General Usage Uplink/Downlink: 145.827 MHz 1200 Baud
Special Usage Downlink: 144.390 Mhz 1200 Baud

PCSAT APRS page: http://pcsat.aprs.org

aprstlm Telemetry Decoder program:
http://www.xciv.org/~iain/aprstlm/v1.2/
[10292012]
=====
RS-22 RADIO SPORT 22 (MOZHAYETS 4)
Catalog number: 27939
Launch Date: September 27, 2003 0612z
Launch site: Plesetsk Missile and Space Complex, Russia

Status: Operational - 70cm cw only

Current Mode: /u

CW Beacon - 435.352 MHz
145.818 MHz

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=76&retURL
=/satellites/status.php
[02092011]
=====
LO-19 LUSAT
Catalog number: 20442
Launch date: January 22, 1990
Launch site: Kourou, French Guiana

Status: CW Beacon only

Uplinks: 145.840 MHz 1200-baud Manchester FSK
145.860 MHz 1200-baud Manchester FSK
145.880 MHz 1200-baud Manchester FSK
145.900 MHz 1200-baud Manchester FSK

CW downlink: 437.125 MHz

Digital downlink: 437.150 MHz SSB (RC-BPSK 1200-baud PSK)

Broadcast Callsign: LUSAT-11
BBS: LUSAT-12

General information and telemetry samples can be found at:
www.telecable.es/personales/ea1bcu
[02092011]
=====
UO-11 OSCAR-11
Catalog number: 14781
Launch Date: March 1, 1984
Launch site: Vandenburg AFB, California, USA

Status: Operational ?

Current Mode: /v

Telemetry Downlink: 145.825 MHz FM 1200 AFSK
UHFBeacon: 435.025 MHz
Mode-S Beacon: 2401.500 MHz

Mode and Antenna Polarization:
V: RHCP
S: LHCP

Webpage: http://www.users.zetnet.co.uk/clivew/
MPEG3 files: http://www.ne.jp/asahi/hamradio/je9pel/uo11tlme.htm
[07052011]
=====
INTERNATIONAL SPACE STATION (ISS) - ARISS
Catalog number: 25544
Launch date: November 20, 1998 0640z (ZARYA module)
Launch sites: Baikonur, Kazakhstan
Kourou, French Guiana
Uchinoura Space Center, Japan

Kennedy Space Center, Titusville, Florida, USA

Status: Operational

Current Active Modes: FM Repeater - OFF
Voice - V/v
BBS - V/v
2m APRS - V/v
2m Digi - V/v
70cm APRS - ?
70cm Digi - ?
SSTV - V/v

Expedition 35 Crew (March 2013 - September 2013):
Commander: Chris Hadfield KC5RNJ/VA3OOG
Flight Engineer: Tom Marshburn KE5HOC
Flight Engineer: Roman Romanenko
Flight Engineer: Aleksandr Misurkin
Flight Engineer: Pavell Vladimirovich RV3BS
Flight Engineer: Christopher Cassidy KF5KDR

Available Modes and Frequencies:
Digital/APRS:
Worldwide 2m packet uplink: 145.825 MHz FM 1k2
Worldwide 2m packet downlink: 145.825 Mhz FM 1k2
Worldwide 70cm packet uplink: 437.550 Mhz FM 1k2
Worldwide 70cm packet downlink: 437.550 Mhz FM 1k2

Voice:
Region 1 voice uplink: 145.200 MHz FM
Region 2/3 voice uplink: 144.490 MHz FM
Worldwide downlink: 145.800 MHz FM

Crossband Repeater:
Repeater Uplinks: 1269.650 MHz FM
437.800 MHz FM
145.990 MHz FM - 67.0 PL (Kenwood)
Repeater Downlink: 145.800 MHz FM
437.800 MHz FM (Kenwood)

SSTV Robot 36:
Downlink: 145.800 MHz FM

Mode and Antenna Polarization:
V: Linear
U: Linear

Callsigns:
Belgian: OR4ISS
German: DP0ISS
Russian: RS0ISS
RZ3DZR
United States: NA1SS

2m Packet Mailbox: RS0ISS-11
2m Digipeater alias: ARISS
70cm Packet Mailbox: RS0ISS-1
70cm Digipeater callsign: RS0ISS
70cm Digipeater alias: ARISS

Official ARISS Webpage: http://www.rac.ca/ariss
ISS Fan Club Webpage: http://www.issfanclub.com
APRS tracking page: http://www.ariss.net/

ISS Daily Crew Schedule: http://spaceflight.nasa.gov/station/timelines
Remember that the crew operates on UTC time. Also, all of the time
line is NOT translated from Russian and posted.
[04082013]
NNNN
/EX

SB SAT @ AMSAT W8ISS $WSR-112.S3
WSR 112 Part 3 03/22/2013

AMSAT NEWS SERVICE BULLETIN 112.S3
FROM AMSAT HQ SILVER SPRING, MD, April 22, 2013
TO ALL RADIO AMATEURS
BID: $WSR-112.S3

THE FOLLOWING ARE IN ORBIT BUT ARE NON-OPERATIONAL AT THIS TIME:

NANOSAIL-D
Catalog Number: 37361
Ejection Date: January 17, 2011

Status: Non - Operational

Downlink: 437.270 MHz AX.25

URL: http://nanosaild.engr.scu.edu/dashboard.htm

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=115
[07302012]
=====
HO-68 HOPE-1 (CAS-1) (XW-1)
Catalog Number: 36122
Launch Date: December 15, 2009 0231z
Launch site: Taiyuan Space Center, PRC

Status: Telemetry only

Callsign:
Broadcast: BJ1SA-11
BBS: BJ1SA-12

Uplinks: 145.8250 MHz FM, PL 67.0 Hz.
145.9250 - 145.9750 MHz SSB/CW

145.8250 MHz AFSK 1200 BPS
Downlinks: 435.6750 MHz FM
435.7650 - 435.7150 MHz SSB/CW
435.6750 MHz AFSK 1200 BPS

Beacon: 435.7900 MHz CW

Mode and Antenna Polarization:
V: LHCP 2.0dBi max
U: RHCP 3.0dBi max

IARU coordination page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=108

For more information about XW-1 (CAS-1):
http://
[04302012]
=====
SO-67 SumbandilaSat
Catalog Number: 35870
Launch Date: September 17, 2009 1555z
Launch site: Baikonur, Kazakhstan

Status: Non - Operational

Callsign: ZS0SUM

Uplink: 145.875MHz FM tone 233.6 Hz
Downlink: 435.345MHz FM

Mode and Antenna Polarization:
V: Linear
U: Linear

For more information about SO-67:
http://www.amsatsa.org.za/

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=88
[01272012]
=====
CP4
Catalog Number: 31132
Launch Date: April 17, 2007

Status: Non-Operational

Current Mode: /u

TLM Downlink: 437.325 MHz 1200 bps FSK AX.25
CW Beacon: 437.325 MHz CW

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=79
[09062010]

=====
LIBERTAD-1
Catalog Number: 31128
Launch Date: April 17, 2007

Status: Non-Operational

Current Mode: V/u APRS Packet ax25

Callsign: 5K3L

Uplink: 145.825 MHz 1200 AFSK ax25 APRS
Downlink: 437.399 MHz 1200 AFSK ax25 APRS

Telemetry Beacon: 437.4050 MHz 1200 AFSK ax25

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=76
[09062010]
=====
PO-63 PEHUENSAT-1
Catalog Number: 29712
Launch Date: January 10, 2007

Status: Non-Operational

Current Mode: V/v

Uplink/Downlink: 145.825 Mhz FM
Voice Recorder: 145.825 Mhz FM

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=51
[09062010]
=====
NCUBE-2
Catalog number: 28897
Launch Date: October 27, 2005

Status: Still attached to XO-53 (SSETI)?

Proposed Callsign: TBA
Proposed Transmit Frequency: 437.305
2407.250

Official Website: http://www.ncube.no

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=24
[09062010]
=====
XO-53 SSETI
Catalog number: 28894
Launch Date: October 27, 2005

Status: Non-operational

Voice Uplink: 437.250 MHz FM 67Hz CTCSS
Voice Downlink: 2401.835 MHz FM
Packet Up/Downlink: 437.250 MHz 9k6 packet
Packet Downlink 2401.835 MHz 38k4 packet

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=54
[09062010]
=====
UWE-1
Catalog Number: 28892
Launch Date: October 27, 2005

Status: Non-Operational

Mode U Telemetry
Downlink: 437.5050 MHz 9600 AFSK

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=53
[09062010]
=====
AO-51 ECHO
Catalog number: 28375
Launch date: June 29, 2004 0745z
Launch site: Baikonur, Kazakhstan

Status: Non - Operational

Current Mode(s):
Voice repeater: V/u
Uplink: 145.880 MHz FM
Downlink: 435.150 MHz FM

Telemetry: Recovery efforts
Downlink: 435.150MHz 9k6

Analog voice downlink: 435.300 MHz FM
435.150 MHz FM
2401.200 Mhz FM
Analog voice uplink: 145.860 MHZ FM
145.880 MHz USB
145.880 MHz FM
145.920 MHz FM
145.920 MHz FM - 67 Hz PL tone burst
1268.705 MHz FM
Digital Downlinks: 435.150 MHz FM 38k4 PBP, 1 watt output
435.150 MHz FM 9k6 Pacsat Broadcast
Protocol
2401.200 MHz FM 38k4 bps, AX.25
Digital Uplink: 145.860 MHz FM 9k6 Pacsat Broadcast
Protocol

1268.703 mhz FM 9k6 Pacsat Broadcast
Protocol
Beacon: 435.150 MHz

Mode and Antenna Polarization:
T: Linear
V: Linear
U: TX A (usually digital)LHCP
TX B (usually analog) RHCP
L: Linear
S: Linear

Broadcast: PECHO-11
BBS: PECHO-12

Official Webpage: http://www.amsat.org/amsat-new/echo/CTNews.php

IARU coordination status page:
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=19
[12062011]
=====
CANX-1
Catalog Number: 27847
Launch Date: June 30, 2003

Status: Non-Operational

Downlink: 437.8800 MHz AFSK 1k2bps
[06052009]
=====
DTUSAT
Catalog Number: 27842
Launch Date: June 30, 2003

Status: Non-Operational

Current Mode: 2k4 AFSK Packet last reported

Downlink: 437.475MHz

Officail webpage: http://dtusat1.dtusat.dtu.dk/

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=101&retURL
=satellites/all_oscars.php
[02212009]
=====
AO-49 AATiS OSCAR-49 (SAFIR-M)
Catalog number: 27605
Launch Date: December 20, 2002

Status: Non-operational.

Uplink: 435.275 MHz 1200-baud AFSK
Downlink: 145.825 MHz 9600-baud FSK
(optional voice message)

Broadcast callsign: DP0AIS

Official webpage: http://amend.gmxhome.de
[01222007]
=====
MO-46 TIUNGSAT-1
Catalog number: 26548
Launch date: September 26, 2000

Status: Telemetry only

Uplinks: 145.850 MHz
145.925 MHz 9600-baud FSK
Downlink: 437.325 MHz

Broadcast callsign: MYSAT3-11
BBS: MYSAT3-12

TiungSat-1 is Malaysia's first micro-satellite and in addition to
commercial land and weather imaging payloads offers FM and FSK
Amateur Radio communication.

TiungSat-1, named after the mynah bird of Malaysia, was developed as
a collaborative effort between the Malaysian government and Surrey
Satellite Technology Ltd.
[03302009]
=====
NO-45 SAPPHIRE
Catalog number: 26932
Launch Date: September 30, 2001

Status: Non-Operational

Downlink: 437.095 MHz 1200 baud AX-25 AFSK
Uplink: 145.945 MHz UI Digipeater
Digi Callsign: KE6QMD

Everyone is welcome to use the digipeating/APRS features of Sapphire,
as per the user service agreement located at the following URL:
http://web.usna.navy.mil/~bruninga/pcsat/contract.txt
[03132005]
=====
SO-42 SAUDISAT-1B
Catalog number: 26549
Launch date: September 26, 2000

Status: Non-Operational

Downlink: 437.075 MHz

Broadcast Callsign: SASAT2-11
BBS: SASAT2-12

Further information is available at:
http://www.amsat.org/amsat/sats/n7hpr/so42.html
[01222007]
=====
SO-41 SAUDISAT-1A
Catalog number: 26545
Launch Date: September 26, 2000

Status: Non-Operational

Uplink: 145.850 MHz
Downlink: 436.775 MHz

Broadcast Callsign: SASAT1-11
BBS: SASAT1-12

Further information is available at:
http://www.amsat.org/amsat/sats/n7hpr/so41.html
[01222007]
=====
AO-40 AMSAT OSCAR 40
Catalog number: 26609
Launch Date: November 16, 2000

Status: Non-Operational

Uplinks

V-band: 145.840 - 145.990 MHz CW/LSB
U-band: 435.550 - 435.800 MHz CW/LSB
L1-band: 1269.250 - 1269.500 MHz CW/LSB
L2-band: 1268.325 - 1268.575 MHz CW/LSB

Downlinks

S2-band: 2401.225 - 2401.475 MHz CW/USB
K-band: 24048.010 - 24048.060 MHz CW/USB
Beacon: 2401.323 MHz
24048.035 MHz

P3-D Telemetry Beacons (IHU)

BEACON General Beacon(GB) Middle Beacon(MB) Engineering Beacon(EB)
2 m none 145.898 MHz none
70cm 435.438 MHz 435.588 MHz 435.838 MHz
13cm(1) 2400.188 MHz 2400.338 MHz 2400.588 MHz
13cm(2) 2401.173 MHz 2401.323 MHz 2401.573 MHz
3cm 10450.975 MHz 10451.125 MHz 10451.375 MHz
1.5cm 24047.885 MHz 24048.035 MHz 24048.285 MHz
[07162007]
=====

OO-38 OPAL
Catalog Number: 26063
Launch Date: January 27, 2000

Status: Non-Operational

Mode U TLM Beacon
Downlink: 437.1000 MHz 9600 FSK
[08132007]
=====
UO-36 UoSAT-12
Catalog number: 25693
Launch date: April 21, 1999

Status: Unknown

Uplink: 145.960 MHz (9600-baud FSK)
Downlinks: 437.025 MHz
437.400 MHz

Broadcast Callsign: UO121-11
BBS: UO121-12

The VK5HI viewer shareware for UO-36 is available on the AMSAT-NA web
site at the following URL:
ftp://ftp.amsat.org/amsat/software/win32/display/ccddsp97-119.zip
[01222007]
=====
SO-35 SUNSAT
Catalog Number: 25636
Launch date:February 23, 1999

Status: Non-Operational

Downlink: Mode B Repeater: 436.291 MHz
Mode J Digipeater: 436.250 MHz

Uplinks: Mode B Repeater: 145.825 MHz
Mode J Digipeater: 145.825 MHz
145.900 MHz

For more information of SUNSAT vist the satellite web site:
http://esl.ee.sun.ac.za/projects/sunsat/
[01222007]
=====
PO-34 PANSAT
Catalog number: 25520
Launch date: October 30, 1998

Status: Telemetry downloads only

Uplink/downlink: 436.500 MHz

Official Webpage: http://www.sp.nps.navy.mil/pansat/
[05092004]
=====
SO-33 SEDSAT-1
Catalog number: 25509
Launch date: October 24, 1998

Status: Semi-operational

Downlink: 437.910 MHz FM (9600-baud FSK)

The satellite is not currently available for uplink transmissions and
the image and transponder recovery efforts have been unsuccessful.

For more information on SedSat-1 visit the satellite web site:
http://seds.uah.edu/projects/sedsat/sedsat.htm
[09042006]
=====
GO-32 Gurwin TechSat-1B
Catalog number: 25397
Launch Date: July 10, 1998

Status: Non-Operational

Current Modes:
Telemetry : /u

Downlink: 435.225 MHz FM (9600-baud FSK)
435.325 Mhz - Not Available - temperature problems
Uplinks: 145.850 FM
145.890 FM
145.930 FM
1269.700 FM
1269.800 FM
1269.900 FM

Broadcast Callsign: 4XTECH-11
BBS Callsign: 4XTECH-12

More information of GO-32 can be found at:
http://asri.technion.ac.il/techsat/

AMSAT-NA webpage:
http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=14&retURL
=/satellites/status.php
[07172010]
=====
TO-31 TMSAT-1
Catalog number: 25396
Launch Date: July 10, 1998

Status: Non-operational

Uplink: 145.925 MHz 9600 baud FSK
Downlink: 436.925 MHz 9600 baud FSK

Broadcast callsign: TMSAT1-11
BBS: TMSAT1-12
[05012006]
=====
MO-30 UNAMSAT-2
Catalog Number: 24305
Launch Date: September 5, 1996

Status: Non-operational

Downlink: 435.1380 MHz AFSK 1200 BPS
Downlink: 435.2060 MHz AFSK 1200 BPS
Uplink: 145.8150 MHz AFSK 1200 BPS
Uplink: 145.8350 MHz AFSK 1200 BPS
Uplink: 145.8550 MHz AFSK 1200 BPS
Uplink: 145.8750 MHz AFSK 1200 BPS
[06042009]
=====
PO-28 POSAT-1
Catalog number: 22829
Launch Date: September 25, 1993

Status: Non-operational

Downlink: 429.950
Uplink: Not until handover back to Amatuer usage

Broadcast callsign: POSAT1-11
BBS callsign: POSAT1-12

AMSAT Webpage: http://www.amsat.org/amsat/sats/n7hpr/po28.html
POSAT-1 webpage:
http://www.ee.surrey.ac.uk/SSC/CSER/UOSAT/missions/posat1.html
[01012009]
=====
AO-27 AMRAD
Catalog number: 22825
Launch Date: September 26, 1993 0140z
Launch site: Kourou, French Guiana

Status: Recovery efforts in progress

Current Mode: V/u

Uplink: 145.850 MHz FM
Downlink: 436.797 MHz FM

Mode and Antenna Polarization:
V: Linear
U: Linear

Official Webpage: http://www.ao27.org
[12032012]
=====
IO-26 ITAMSAT

Catalog number: 22826
Launch Date: September 26, 1993 0140z

Status: PSK carrier only

Current Mode:

Uplinks: 145.875 MHz FM 1200-baud
145.900 MHz FM 1200-baud
145.925 MHz FM 1200-baud
145.950 MHz FM 1200-baud

Downlink: 435.808 MHz PSK

Broadcast Callsign: ITMSAT-11
BBS: ITMSAT-12

Official webpage: http://www.itamsat.org
AMSAT Webpage: http://www.amsat.org/amsat/sats/n7hpr/io26.html
[01212007]
=====
KO-25 KITSAT
Catalog number: 22828
Launch date: September 26, 1993

Status: Non-operational

Uplink: 145.980 MHz FM 9600-baud FSK
Downlink: 436.500 MHz FM

Broadcast Callsign: HL02-11
BBS: HL02-12
[05092004]
=====
AO-24 ARSENE
Catalog Number: 22654
Launch Date: May 13, 1993

Status: Non-operational

Uplink: 435.0625 MHz FM 1k2bps AFSK
435.1125 MHz FM 1k2bps AFSK
435.1375 MHz FM 1k2bps AFSK
Downlink: 145.9750 MHz FM 1k2bps AFSK
2446.5025 MHz FM 1k2bps AFSK

Beacon: 2446.4700 MHz CW

Broadcast callsign:
BBS:
[12162009]
=====
KO-23 KITSAT
Catalog number: 22077

Launch date: August 10, 1992

Status: Non-operational

Uplink: 145.900 MHz FM (9600-baud FSK)
Downlink: 435.170 MHz FM

Broadcast Callsign: HLO1-11
BBS: HLO1-12
[01222007]
=====
UO-22 UOSAT
Catalog number: 21575
Launch date: July 17, 1991

Status: Non-Operational

Uplink: 145.900 FM 9600-baud FSK
Downlink: 435.120 MHz FM

Broadcast Callsign: UOSAT5-11
BBS: UOSAT5-12
[01222007]
=====
AO-21 AMSAT-OSCAR 21
Catalog Number: 21087
Launch Date: January 29, 1991

Status: Non-Operational

Uplink: 435.041 MHz FM DSP
Downlink: 145.983 MHz FM DSP
[01222007]
=====
FO-20 JAS-1b
Catalog number: 20480
Launch Date: February 07, 1990

Status: Non-Operational

Beacons: 435.795 MHz CW
435.910 MHz AX25

Voice Transponder:
Uplink: 145.900 to 146.000 MHz CW/LSB
Downlink: 435.800 to 435.900 MHz CW/USB

Digital Transponder:
Uplinks: 145.850 MHz
145.870 MHz
145.890 MHz
145.910 MHz
Downlink: 435.910 MHz

More FO-20 info can be found at:
http://www.amsat.org/amsat/sats/n7hpr/fo20.html
[01152007]
=====
WO-18 WEBERSAT
Catalog Number: 20441
Launch Date: January 22, 1990

Status: Non-Operational

Downlink: 437.104 MHz SSB 1200 Baud PSK AX.25
[05012006]
=====
DO-17 Dove
Catalog Number: 20440
Launch Date: January 22, 1990

Status: Non-operational.

Downlink: 145.825 MHz FM 1200 Baud AFSK
Beacon: 2401.220 MHz
[05012006]
=====
AO-16 PACSAT
Catalog number: 20439
Launch Date: January 22, 1990

Status: non-operational

Current Mode: V/u

Uplink: 145.900 MHz FM 1200-baud Manchester FSK (reserved)
145.920 MHz FM VOICE
145.940 MHz FM 1200-baud Manchester FSK (reserved)
145.960 MHz FM 1200-baud Manchester FSK (reserved)

Downlink: 437.026 MHz USB VOICE
(1200-baud PSK - MBL Telemetry Only)

Mode-S Beacon: 2401.1428 MHz [NO FUTURE OPERATIONS PLANNED]

Mode and Antenna Polarization:
U: RC 437.050 MHz RHCP
PSK 437.026 MHz LHCP
V: Linear

Broadcast Callsign: PACSAT-11
BBS: PACSAT-12

AO-16 AMSAT Webpage: http://www.amsat.org/amsat/sats/n7hpr/ao16.html
[07242009]
=====
UO-15 UoSAT-4
Catalog Number: 20438
Launch Date: January 22, 1990

Status: Non-operational

Uplink: ?
Downlink: 435.1250MHz (?)
435.1200MHz (?)
[06042009]
=====
UO-14 UoSAT-3
Catalog number: 20437
Launch date: January 22, 1990

Status: Non-operational

Uplink: 145.975 MHz FM
Downlink: 435.070 MHz FM
[05092004]
=====
FO-12 Fuji-OSCAR 12
Catalog Number: 16909
Launch Date: August 12, 1986

Status: Non-Operational

Mode V/U (J) Linear Transponder (Inverting):
Uplink: 145.9000 - 146.0000 MHz SSB/CW
Downlink 435.8000 - 435.9000 MHz SSB/CW

Mode V/U (J) Packet:
Uplink: 145.8500 MHz MFSK 1200 BPS
Uplink: 145.8700 MHz MFSK 1200 BPS
Uplink: 145.8900 MHz MFSK 1200 BPS
Uplink: 145.9100 MHz MFSK 1200 BPS

Downlink 435.9100 MHz PSK 1200 BPS

Telemetry Beacon: 435.7950 MHz SSB/CW
[01152007]
=====
AO-10 OSCAR 10
Catalog number: 14129
Launch Date: June 16, 1983

Status: Non-operational

Uplink: 435.030 to 435.180 MHz CW/LSB
Downlink: 145.975 to 145.825 MHz CW/USB

Beacon: 145.810 MHz (unmodulated carrier)

W4SM has more information about the satellite at the following URL:
http://www.cstone.net/~w4sm/AO-10.html
[05092004]
=====
AO-8 AMSAT-OSCAR 8
Catalog Number: 10703

Launch Date: March 3, 1978

Status: Non-Operational

Mode V/U (J) Linear Transponder (Non-Inverting): Non-Operational
Uplink: 145.9000 - 146.0000 MHz SSB/CW
Downlink 435.1990 - 435.2000 MHz SSB/CW

Mode V/U (J) TLM Beacon: Non-Operational
Downlink 435.0950 MHz CW

Mode V/A (A) Linear Transponder (Non-Inverting): Non-Operational
Uplink: 145.8500 - 145.9000 MHz SSB/CW
Downlink 29.4000 - 29.5000 MHz SSB/CW

Mode V/A (A) TLM Beacon: Non-Operational
Downlink 29.4020 MHz CW
[01152007]
=====
AO-6 AMSAT-OSCAR 6
Catalog Number: 06236
Launch Date: October 15, 1972

Status: Non-Operational

Uplink: 145.9000 - 146.0000 MHz SSB/CW
Downlink: 29.4500 - 29.5500 MHz SSB/CW
Beacons: 29.450 MHz
435.100 MHz
[01312008]
=====
AO-5 Australis-OSCAR 5
Catalog Number: 04321
Launch Date: January 23, 1970

Status: Non-Operational

Telemetry Beacons: 144.0500 MHz CW
29.4500 MHz CW
[01152007]
=====
OSCAR III
Catalog Number: 01293
Launch Date: March 09, 1965

Status: Non-Operational

Uplink: 145.9750 - 146.0250 MHz SSB/CW
Downlink: 144.3250 - 144.3750 MHz SSB/CW
[01012007]
=====
RS-15 RADIO SPORT RS-15
Catalog number: 23439
Launch Date: December 26, 1994

Status: Non-operational

Uplink: 145.858 to 145.898 MHz CW/USB
Downlink: 29.354 to 29.394 MHz CW/USB

Beacon 1: 29.352 MHz (intermittent)
Beacon 2: 29.398 MHz

SSB meeting frequency: 29.380 MHz (unofficial)
[06202004]
=====
RS-13 RADIO SPORT RS-13
Catalog number: 21089
Launch date: February 5, 1991

Status: Non-operational

Uplink: 21.260 to 21.300 MHz CW/USB
Downlink: 145.860 to 145.900 MHz CW/USB

Beacon: 145.860 MHz

Robot: 145.908 MHz
[05232004]
=====
RS-12 RADIO SPORT RS-12
Catalog number: 21089
Launch date: February 5, 1991

Status: Non-operational

Uplink: 21.210 to 21.250 MHz CW/USB
Downlink: 29.410 to 29.450 MHz CW/USB

Beacon: 29.408 MHz

Robot: 29.454 MHz
[05232004]
NNNN
/EX

ANS is released worldwide via the AMSAT ANS e-mail reflector and a
live
radiocast on the AMSAT-NA 20-meter net held each Sunday on 14.282 MHz.
Pre-net operations start at 18:00 UTC, with current ANS bulletins
trans-
mitted to the eastern U.S. at 19:00 UTC and to the western U.S. at
19:30
UTC.

Information on AMSAT-NA is available at the following URL:
http://www.amsat.org

Mailing address:
AMSAT-NA
850 Sligo Avenue, Suite 600

Silver Spring, Maryland 20910-4703

Voice: 301-589-6062
888-322-6728
FAX: 301-608-3410

Currently, AMSAT-NA supports the following (free) mailing lists:

* AMSAT News Service (ANS)
* General satellite discussion (AMSAT-BB)
* Orbit data (KEPS)
* Manned space missions (SAREX)
* District of Columbia area (AMSAT-DC)
* New England area (AMSAT-NE)
* AMSAT Educational Liaison mailing list (AMSAT-EDU)
* AMSAT K-12 Educational Liaison mailing list (AMSAT-K12)

A daily digest version is available for each list.

To subscribe, or for more list information, visit the following URL:
http://www.amsat.org/mailman/listinfo/ans

In addition to regular membership, AMSAT-NA offers membership in the President's Club. Members of the President's Club, as sustaining donors to AMSAT Project Funds, will be eligible to receive additional benefits. Application forms are available from the AMSAT-NA Office.

This week's Weekly Satellite Report Editor is James French, W8ISS.

ANS is always dedicated to past ANS editor 'BJ' Arts, WT0N, and to the memory of longtime AMSAT supporters Werner Haas, DJ5KQ, Dennis Kitchen, G0FCL and John Branegan GM4IHJ.

Please send any amateur satellite news or reports to: ans-editor{at}
amsat.org
NNNN
/EX

67. Weekly Highlights of Solar and Geomagnetic Activity, 22 - 28 April 2013

Newsgroup: rec.radio.amateur.space
Date: 2013-04-29 15:30:11 UTC
From: SWPC.Webmaster@noaa.gov
Message-ID: <20130429153002.B1CFE33C8E@panix2.panix.com>
Source record: 44
Cross-posted to: rec.radio.amateur.misc,rec.radio.amateur.dx,rec.radio.amateur.space,rec.radio.shortwave,rec.radio.info

```
:Product: Weekly Highlights and Forecasts
:Issued: 2013 Apr 29 0434 UTC
# Prepared by the US Dept. of Commerce, NOAA, Space Weather Prediction Center
# Product description and SWPC contact on the Web
# http://www.swpc.noaa.gov/weekly.html
#
# Weekly Highlights and Forecasts
#
Highlights of Solar and Geomagnetic Activity
22 - 28 April 2013

Solar activity was at low to moderate levels during the period. The
period began at very low levels, but quickly rose to moderate levels
as an impulsive M1 flare and associated Type IV radio sweep occurred
at 22/1029 UTC from Region 1726 (N13, L=331, class/area Fkc/1000 on
25 Apr). An associated coronal mass ejection (CME) was observed in
LASCO C2 imagery off the west limb at 21/1036 UTC, but was only
partially Earth-directed and did not result in noticeable impacts.
Activity returned to low levels following the M1 flare, but remained
fairly active throughout the period, producing over 60 C-class
flares. The most active region was Region 1726, which produced over
33 C-class flares on its own. As soon as Region 1726 rotated off the
visible disk on 25 Apr, Region 1731 (N09, L=187, class/area Dkc/420
on 28 Apr) emerged and quickly became the area of interest,
producing a total of 12 C-class flares. Region 1733 (S17, L=254,
class/area Cso/30 on 28 Apr) produced a C4/1n flare associated with
Type II (576 km/s) and Type IV radio emissions at the end of the
forecast period, and had an associated potentially Earth-directed
CME. Further analysis is pending.

No proton events were observed at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit was
normal to moderate levels from 22 Apr to 26 Apr. Flux values
increased to high levels on 27 Apr, reaching a max of 2920 pfu at
27/1625 UTC, and remained at moderate to high levels until late on
28 Apr as a result of effects from coronal hole high speed stream
(CH HSS) activity.

Geomagnetic field activity was at quiet to unsettled levels on 22-23
Apr. Activity increased to unsettled to active levels on 24 Apr due
to effects from a favorably positioned CH HSS. Solar wind speeds
increased to near 430 km/s, the total interplanetary magnetic field
(IMF) reached a maximum 23.4 nT, and the Bz component dropped to
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-18.9 nT. Solar wind speed continued to increase on 25 Apr to the 500 km/s range, total fields decreased to approximately 5 nT, and the Bz component of the IMF was variable between +/- 3 nT. The ionosphere responded with a short-lived G1 (Minor) geomagnetic storm early on 26 Apr, but conditions quickly returned to unsettled levels for the remainder of the day. Quiet levels returned by 27 Apr and remained there through the end of the period as CH HSS effects diminished.

Forecast of Solar and Geomagnetic Activity
29 April - 25 May 2013

Solar activity is expected to be low with a chance for M-class flares through 07 May as Region 1731 remains on the visible disk. Activity is expected to decrease to very low to low levels through 08 May. Activity will likely increase to low with M-class flares likely when we see Region 1726 return on 09 May. Region 1731 returns on 20 May, keeping levels low with M-class flares likely through the end of the forecast period.

No proton events are expected at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit is expected to be at moderate to high levels through 02 May due to CH HSS effects. Values should decrease to normal to moderate levels from 03 May through 21 May. Another increase to moderate to high levels in response to recurrent CH HSS effects is expected from 22-25 May.

Geomagnetic field activity is expected to be mostly quiet through 20 May. Conditions should increase to unsettled to active with isolated periods of minor storming possible from 21-23 in response to recurrent CH HSS effects. Mostly quiet levels should return on 24 and 25 May.

68. Radio Meteor Obs. Bull. April 2013 Lyrids

Newsgroup: rec.radio.amateur.space
Date: 2013-05-05 17:42:49 UTC
From: Chris Steyaert <observations@rmob.org>
Message-ID: <if6do854b94770rdnkpl222f117rtvlohs@4ax.com>
Source record: 45
Cross-posted to: rec.radio.amateur.space,sci.astro.amateur

Radio Meteor Observation Bulletin No. 237 of April 2013 (80 K) is available now as

http://www.rmob.org/rmobtext/rmob1304.txt

More information and the visual presentation of the hourly forward scatter counts can be found on

http://www.rmob.org

Chris

69. Weekly Highlights of Solar and Geomagnetic Activity, 29 April - 05 May 2013

Newsgroup: rec.radio.amateur.space
Date: 2013-05-06 15:31:03 UTC
From: SWPC.Webmaster@noaa.gov
Message-ID: <20130506153001.76C8C33C8E@panix2.panix.com>
Source record: 46
Cross-posted to: rec.radio.amateur.misc,rec.radio.amateur.dx,rec.radio.amateur.space,rec.radio.shortwave,rec.radio.info

```
:Product: Weekly Highlights and Forecasts
:Issued: 2013 May 06 0122 UTC
# Prepared by the US Dept. of Commerce, NOAA, Space Weather Prediction Center
# Product description and SWPC contact on the Web
# http://www.swpc.noaa.gov/weekly.html
#
# Weekly Highlights and Forecasts
#
Highlights of Solar and Geomagnetic Activity
29 April - 05 May 2013

Solar activity reached high levels this week when Region 1739 (N13,
L=75, class/area=Dac/150 on 03 May) appeared on the east limb and
unleashed an M5/Sf flare on 03 May at 1732Z. The flare was
accompaned by Type II (1297 km/s) and Type IV radio emissions. A
coronal mass ejection (CME) was subsequently observed in LASCO/C2
coronagraph imagery at 03/1748Z and also in STEREO-A and B COR2
imagery. Region 1739 was also responsible for an M1/Sf flare at
05/1756Z. The most prolific active region of the week was, by far,
Region 1731 (N09, L=187, class/area=Dkc/420 on 28 Apr) with 17
C-class and two M-class flares to its credit. By 30 Apr, Region 1731
had developed beta-gamma-delta magnetic characteristics which it
mainteined through 03 May. During this period it produced an M1/1n
flare at 02/0510Z and a long duration M1/2n flare at 03/1655Z. The
02 May event was associated with a tenflare (159 sfu), a Type II
emission (703 km/s), and a CME first seen in LASCO/C2 imagery at
02/0524Z. The majority of the ejecta was directed north of the
ecliptic, but output from the WSA-Enlil model suggested a possible
scrape from the CME on 06 May. The 03 May event was not associated
with a CME.

No proton events were observed at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit was at
high levels on 29-30 Apr and 03-04 May.

Geomagnetic field activity reached ensettled to active levels
beginning late on 30 Apr and lasting through 02 May. This activity
was in response to the presence of a recurrent negative polarity
coronal hole high speed stream. On 01 May, activity reached major
storm levels at high latitudes. Activity returned to quiet levels
early on 02 May. Conditions were quiet, with the exception of one
unsettled period during the latter half of 05 May with the arrival
of a corotating interaction region in advance of a positive polarity
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recurrent coronal hole high speed stream.

Forecast of Solar and Geomagnetic Activity
06 May - 01 June 2013

Solar activity is expected to be at low levels with a chance for an isolated moderate or greater event for the extent of the outlook period.

No proton events are expected at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit is expected to be high on 8-10 May and again on 24-31 May in response to recurrent coronal hole high speed streams.

Geomagnetic field activity is expected to be quiet to unsettled for the majority of the outlook period. Active levels are possible on 21-23 May in response to a recurrent coronal hole high speed stream.

70. ANS-132 AMSAT News Service Weekly Bulletins

Newsgroup: rec.radio.amateur.space
Date: 2013-05-12 01:27:12 UTC
From: JoAnne Maenpaa <k9jkm@comcast.net>
Message-ID: <003401ce4eaf$cc055d30$64101790$@net>
Source record: 47
Cross-posted to: rec.radio.amateur.space,rec.radio.info

AMSAT NEWS SERVICE
ANS-132

The AMSAT News Service bulletins are a free, weekly news and information service of AMSAT North America, The Radio Amateur Satellite Corporation. ANS publishes news related to Amateur Radio in Space including reports on the activities of a worldwide group of Amateur Radio operators who share an active interest in designing, building, launching and communicating through analog and digital Amateur Radio satellites.

The news feed on http://www.amsat.org publishes news of Amateur Radio in Space as soon as our volunteers can post it.

Please send any amateur satellite news or reports to:
ans-editor at amsat.org.

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SB SAT @ AMSAT $ANS-132.01
ANS-132 AMSAT News Service Weekly Bulletins

AMSAT News Service Bulletin 111.01
>From AMSAT HQ SILVER SPRING, MD.
May 12, 2013
To All RADIO AMATEURS
BID: $ANS-132.01

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************************************************************
* Volunteers are still needed to help at the AMSAT booth at *
* Dayton. We have about 20 people who have stepped forward, *
* but we could use a few more. If you are willing to spend a *
* couple of hours on Friday, Saturday, or Sunday to help at *
* the Hamvention, please send an e-mail NOW to Steve Belter, *
* n9ip@amsat.org. If you've volunteered, but not heard back *
* from Steve, please send him another note. Thank you! *
* *
* Monitor the 'AMSAT at Dayton Hamvention 2013' link on the *
* new AMSAT Web Site http://www.amsat.org for the latest *
* AMSAT at Dayton news and developments. *
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AMSAT is Going to the Dayton Hamvention This Week

This is the week - May 16 through May 19 - for the really big show near Dayton, Ohio at the 2013 Hamvention.

AMSAT Hamvention activities and displays are planned to take place at the new booth location (444-446 and 433-435) in the Ball Arena, and outside in the Satellite Demonstration Area just outside the Ball Arena entrance.

2013 theme for AMSAT at Dayton is "AMSAT - A View to the Future."

If you have not yet made your reservations for the AMSAT/TAPR Banquet, please make them by Tuesday, May 14, 1800 EDT. Because of the requirement that the caterer have a final count, no more reservations will be accepted afterwards, either on the AMSAT Store or at Dayton. This is a great opportunity to mingle with your fellow techies, as well as hear a fascinating speaker!

Here are the daily AMSAT activities for on-site and off-site events at the 2013 Hamvention!

Thursday 16 May 2013

+ 11:00 AM - 5:00 PM
AMSAT Booth Setup at Ball Arena (contact Steve Belter, N9IP, n9ip at amsat.org if you can help during this time).

+ 6:30 PM - 10:00 PM
The third Annual AMSAT "Dinner at Tickets" party will be held at Tickets Pub & Eatery in Fairborn, OH. Check out the 'AMSAT at Dayton Hamvention 2013' link to the page 'AMSAT Dayton Social Events' on the new Web Site: http://www.amsat.org.

Friday 17 May 2013

+ 9:00 AM - 6:00 PM at the AMSAT Booth
AMSAT Booth open for membership renewals, books, new items and

information. You may pick up your tickets at the AMSAT boot for the Friday Night AMSAT/TAPR Banquet during this time.

+ 6:30 PM - 10:30 PM AMSAT/TAPR Banquet at Dayton 2013
AMSAT/TAPR Banquet on Friday night, May 17 is one of the main AMSAT activities during the 2013 Hamvention at Dayton. The speaker this year will be Bruce Perens, K6BP, with a humorous history of technology evangelism: "The Evangelist's Dilemma: Driving New Ideas With Nothing But Words."

Saturday 18 May 2013

+ 9:00 AM - 5:00 PM at the AMSAT Booth
AMSAT Booth open for membership renewals, books, new items and information. Note the bulletin below for the AMSAT Store Dayton Deals!

+ 11:15 AM - 1:30 PM The AMSAT Forum
Get the latest information about what is going on with AMSAT and its projects. The AMSAT Forum will be held in Forum Room 5. See the bulletin below for details!

Sunday 19 May 2013

+ 9:00 AM - 1:00PM at the AMSAT Booth
AMSAT Booth open for membership renewals, books, new items and information.

+ 1:00PM - 3:00PM at the AMSAT Booth
Take down and storage of the AMSAT Booth. (contact Steve Belter, N9IP, n9ip at amsat.org if you can help during this time).

Demos Daily on Friday, Saturday, and Sunday for All Available Passes
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AMSAT is encouraging everyone attending the 2013 Dayton Hamvention to come by the Satellite Demonstration Area just outside of the Ball Arena entrance and make a contact using the amateur satellites. There will be AMSAT volunteers to explain how to make the contacts and during actual satellite passes will complete as many actual contacts as possible. Satellite pass times will be posted in the satellite demonstration area and at the AMSAT booth.

[ANS thanks AMSAT's 2013 Dayton Committee for the above information]

AMSAT Engineering Will Show Fox-1 System Software Running on IHU

AMSAT Vice President Engineering, Tony Monteiro, AA2TX reported that the software development team successfully brought up the Fox-1 system software on the Internal Housekeeping Unit (IHU.) The IHU is the brains of the Fox-1 satellite and it has a 32-bit, STM32L microprocessor.

Tony says the operating IHU card will be shown at the Dayton Hamvention next week in the AMSAT booth. The engineering team welcomes everyone to stop by and have a look.

ANS thanks AMSAT Vice President Engineering, Tony Monteiro, AA2TX for the above information]

AMSAT V/U/WX Receive Preamps at Dayton for Display and Sales

AMSAT will have a supply of the popular V/U/WX receive preamplifiers at Dayton for display and sales.

Ready to operate--not a kit! Fully assembled, tested, and installed in a metal enclosure with female BNC connectors on input and output. It is based on the MAR 7 device, and covers 100 MHz to 500 MHz. This includes the137 MHz WX, 2M, and 70cm satellite bands.

Operates from +9-15V DC (a fresh 9V battery works great!). Perfect for portable operations using dual band hand-held Yagis like the ARROW, Cheap Yagi, etc. Just put it inline on the correct receive band for operations in either mode U/V or V/U. You won't believe what you've been missing!

Includes low power (about 5W) protection diode on the input for accidental transmissions into the input. This preamp is not RF switched. It must be protected from inadvertent repeated or high power transmission RF using a relay or diplexer.

Full details and schematic can be found in the November/December 2012 AMSAT Journal article by Mark Spencer, WA8SME, or downloaded from the item in the Hardware section of the AMSAT Store:

http://store.amsat.org/catalog/

The assembled and tested kit is priced at $50 USD.

Proceeds from the sale of this item will help fund the AMSAT Fox Family of satellites!

This equipment was developed as part of the ARRL Education and Technology Program.

[ANS thanks Alan Biddle, WA4SCA for the above information]

New Fox-1 CubeSat Model to Debut at Hamvention 2013

Through the dedicated work of Stefan Wagener, VE4NSA, AMSAT-NA will debut its new 1:1 scale cardboard model of the Fox-1 CubeSat at Hamvention 2013.

We will have a complete display at the AMSAT booth. It is life size, and based on the latest Fox-1 engineering drawings for highest fidelity in design and appearance.

The model is printed in color on heavy stock paper, including all components. The instructions are carefully prepared to allow for easy assembly requiring scissors, glue etc. Depending on experience, assembly will take approximately 10+ hours.

The complete model will be a perfect addition to any satellite operator's shack, and a chance to show visitors what is being done by AMSAT today. We will have finished models at the AMSAT booth for a recommended donation of $25. All proceeds will go to supporting the Fox Project.

See http://ww2.amsat.org/?p=503 for a photo of the model.

[ANS thanks Alan Biddle, WA4SCA for the above information]

Updated AMSAT LVB Tracker to be Shown at Dayton

AMSAT has sold the popular G6LVB Tracker for several years. This year we will have a new version which replaces the amber LCD display with an OLED (Organic Light Emitting Diode) display. The new display offers a high visibility contrast with a wide angle of view. It will be available in blue, green and amber.

LVB Trackers will be available with the recommended serial (RS-232) I/O. The recommended minimum donation will remain $200. An FTDI USB/Serial module is available as an option for an additional $25. A picture showing the old and new displays may be found at: http://ww2.amsat.org/?p=484

Current LVB Tracker owners may update their own units. The OLED displays used are manufactured by Newhaven, NHD-0216KZW series, and are available from Mouser and other online parts suppliers. The OLED displays have less depth so the PEM fasteners need to be shortened for correct fit and viewing thru the front of the case. The LVB Tracker firmware will also require updating. Current owners may send their LVB Tracker to WB8CXO for retrofit if they don't wish to do the modifications themselves. Upgrading existing trackers will be $50 + shipping. Contact WB8CXO@AMSAT.ORG for details.

AMSAT would like to acknowledge the many contributors to this effort. Mike Young, WB8CXO who has supported the Tracker and whose initiative was essential to this development. John Drago, W8FAA modified the LVB Tracker firmware to support the OLED display. Ken Baker from Ridge Machine manufactured the PEM fastener cutting jig. Steve Belter, N9IP,

Mark Hammond, N8MH and John Papay, K8YSE did beta testing. And finally Gould Smith, WA4SXM, LVB Tracker project manager for his continuous guidance and support.

[ANS thanks Alan Biddle, WA4SCA for the above information]

"Dayton Only" Special Deals

As usual, during the Hamvention AMSAT will have a number of special items and packages available at the booth. These will range from new design shirts and hats, to tracking hardware and software, to Elk antennas.

Many of the shirts and trinkets are only available at Dayton. When they are gone, they are gone! Be sure to stop by the booth early while we have a full range of sizes.

Here are some of the bargains announced for Dayton Hamvention 2013:

+ SATPC32 - $40 (normally $45 for members)
+ AMSAT TOTE BAG - $5.00 (Free for new and renewing members and for those who buy a LVB Tracker Box.)
+ AMSAT LICENSE PLATE HOLDER - $5.00 (Free for new and renewing members)

These items are only available at Dayton:
+ LVB TRACKER BOX - $200
+ ELK ANTENNA - $125

The full shopping list, including publications, software, hardware, apparel, and sustaining memberships are posted on the AMSAT On-Line Store at: http://ww2.amsat.org/?page_id=296

Please do not contact the AMSAT office requesting Dayton-only specials. Our regular offerings remain available at the AMSAT Store: http://store.amsat.org/catalog/

[ANS thanks Alan Biddle, WA4SCA for the above information]

Signals Received From Estonia's ESTCube-1 CubeSat

Estonia's first CubeSat ESTCube-1, amateur radio callsign ES5E/S, was successfully launched from the ESA Spaceport in Kourou in French Guiana on May 7, 2013 aboard an ESA VEGA rocket.

Built by students at the University of Tartu ESTCube-1 the main mission of the satellite is to test electric solar wind sail technology, a novel space propulsion technology that could revolutionalize transportation within the solar system. It will deploy a 10 meter conductive electrodynamic tether and the force interacting with the tether will be measured.

Information about the satellite is posted at:
http://www.estcube.eu/en/

The IARU Amateur Satellite Frequency Coordination Panel have published these frequencies for ESTCube-1:

+ 437.250 MHz - CW beacon, callsign ES5E/S
+ 437.505 MHz - 9600 bps AX.25 telemetry, callsign ES5E-11

+ See http://www.estcube.eu/en/radio-details for additional news.
+ A beacon decoder can also be found on a link from this page.

The AMSAT-UK web shows additional photos and a description of the
mission for ESTCube-1 at:
http://amsat-uk.org/2013/05/06/estcube-1-estonias-first-cubesat-2/

The ESTCube-1 Team has begun posting updates on their facebook page:
https://www.facebook.com/estcube

Here is a google maps page that tracks ESTCube-1:
http://tinyurl.com/ESTCube-Tracker (lizard-tail.com)

ESTCube-1 keplerian elements are included in the AMSAT.ORG elements
set sent out this week via the keps@amsat.org e-mail list.

After deployment from the VEGA upper stage reception reports of
ESTCube-1 reception reports from amateur radio stations worldwide
were posted:

+ Ib, OZ1MY received the signal, noting, "Using the preliminary
TLEs I heard ESTCube-1 beacon at 0908 UTC May 7. The received
frequency is approximately 2 KHz higher than published."

+ Nader, ST2NH reported, "EstCube-1 Beacon heard over Africa strong
and clear."

+ Ken, GW1FKY reported, "Monday 7th May 2013 - Time here in Wales, UK
1235hrs UTC. Hearing ESTcube-1 very well with just my Elk antenna
and a Kenwood TS-2000.

+ Jean-Pierre, F5YG wrote, "On orbit number 4, good signal but only
small pieces of text as there is a lot of time between CW frames.

+ Hector, CO6CBF said, "ESTCube-1 was heard in EL92sd with a great
signal. I was running a FUNcube Dongle with SDR-Radio V2.0 and ELK
antenna with a homebrew preamplifier.

Approximately 12 hours after launch the ESTCube-1 team posted a status
that received telemetry packets indicate the satellite had charged its
batteries completely.

[ANS thanks AMSAT-UK and the University of Tartu ESTCube-1 Team for
the above information]

AMSAT-NA Board of Directors Nominations Solicited

It is time to submit nominations for the upcoming open seats on the
AMSAT-NA Board of Directors. A nomination requires either one Member
Society or five current individual members in good standing to
nominate an AMSAT member for the position. Four director's terms
expire this year: Barry Baines, WD4ASW, Alan Biddle, WA4SCA, Drew
Glasbrenner, K04MA, and Tony Monteiro, AA2TX.

In addition to traditional submission of written nominations, which remains unchanged and is the preferred method, nominations may be made by electronic means. These include e-mail, FAX, or electronic image of a petition. Electronic petitions should be sent to MARTHA at AMSAT.ORG or faxed to 301-608-3410.

Written nominations, consisting of names, calls and individual signatures should be mailed to:

AMSAT-NA
850 Sligo Ave #600
Silver Spring, MD, 20910

No matter what means is used, petitions MUST arrive no later than June 15th at the AMSAT-NA office. If the nomination is a traditional written nomination, no other action is required. If it is other than this, i.e. electronic, a verifying traditional written petition MUST be received at the AMSAT-NA office at the above address within 7 days following the close of nominations on June 15th.

ELECTRONIC SUBMISSIONS WITHOUT THIS SECOND, WRITTEN VERIFICATION ARE NOT VALID UNDER THE EXISTING AMSAT-NA BYLAWS.

[ANS thanks the AMSAT Office for the above information]

ARISS School Contacts

Gary, Indiana

An International Space Station school contact was susscessful with participants at The Gary Literacy Coalition, Inc, Gary, IN on May 8. This was a direct contact between NA1SS and KC9JQN.

The Gary Literacy Coalition, Inc. serves as the primary literacy collaborative in the City of Gary and neighboring communities. GLC supports, promotes, enhances, and coordinates the accessibility of literacy opportunities, thus making Gary, "A Reading City."

GLC has maintained a close partnership with the Gary Community School Corporation (GCSC). The GLC/GCSC partnership allows the operation of the "Learning Partner" Mentoring Project. This mentoring initiative is a motivational endeavor offering an arm of support to 4th, 5th and 6th grade students enrolled in the GCSC gender academies; Dr. Bernard C. Watson Academy for Boys and Frankie Woods-McCullough Academy for Girls. The GCSC is an urban public school district challenged to expand and enhance educational experiences for the approximately 10,000 students that it serves. A large percentage of these students reside in single-parent homes and/or low -income families.

Royal Canadian Mounted Police HQ, Yellowknife, NWT, Canada

The contact with the Yellowknife R.C.M.P. Headquarters, Yellowknife,

NWT, Canada, via a telebridge connection with K6DUE that had been scheduled for Saturday, May 11 was postponed due to an unplanned EVA to investigate an ammonia leak. At press time this contact has been rescheduled for a telebridge via K6DUE on Sunday, May 12.

ARISS is requesting listener reports for the above contacts. Due to issues with the Kenwood radio that are not fully understood at present, the Ericsson radio is going to be used for these contacts. ARISS thanks everyone in advance for their assistance.

[ANS thanks the ARISS Team for the above information]

Museum Ships Weekend Special Event Station KK5W Satellite Ops

The Brazos Valley Amateur Radio Club (BVARC) will be participating in the Museum Ships Weekend Event on June 1-2, 2013 from Pelican Island (IOTA NA-143) near Galveston, Texas.

It is expected that amateur radio operators will activate amateur radio stations on over 80 ships worldwide during the event. The BVARC operation from Seawolf Park will activate both the submarine USS Cavalla and the destroyer escort USS Stewart.

BVARC plans a full 2-day operation on the HF bands. Operation on OSCAR satellites is planned for daytime passes on Saturday, June 1. The BVARC satellite team will consist of AMSAT members Andy MacAllister, W5ACM, Allen Mattis, N5AFV, Charlie Keng, K5ENG, and Carl Hacker, WC5WM.

During MSWE 2012 a number of museum ships operated on OSCAR satellites and the KK5W satellite team worked the USS Nautilus, the USS New Jersey, and the Lightship Overfalls. We encourage any interested satellite operators to volunteer to operate on the OSCAR satellites if you live near a participating museum ship. Join in and be part of this worldwide event.

If you hear KK5W on during MSWE 2013 give us a call. QSL with SASE to KK5W, Brazos Valley Amateur Radio Club, PO BOX 2997, Sugar Land, TX 77487-2997.

Additional information is posted on these web pages:

+ http://www.nj2bb.org/museum/index
+ http://www.bvarcmswe.org

[ANS thanks Allen Mattis, N5AFV for the above information]

Additional 2M Downlink Allocation Proposed for Amateur Satellites?

AMSAT-UK reports that an increased allocation for amateur satellite downlink on the 2 meter band has been proposed. In the minutes from

the IARU Region 1 Interim meeting held in Vienna, April 20-21, the papers related to the Amateur Satellite Service included:

+ VIE13_C5_03 Increased Amateur-Satellite Service 144MHz Usage
+ VIE13_C5_05 Recommendations for DATV Transmission
+ VIE13_C5_24 Region 1 Satellite Coordinator Report
+ VIE13_C5_27 New Narrow-Band working frequencies in the 2300-2450 MHz band
+ VIE13_C5_32 2400MHz Amateur Satellites

The VIE13_C5_03 which proposed the use of 144.000-144.035 MHz for satellite SSB/CW downlinks was modified to accommodate some CW contests, the proposal was reduced from 35 to 25kHz (i.e. 144.000-144.025 MHz).

The minutes record that Graham Shirville, G3VZV presented the paper on the increasing use of 2m by satellites and the desire to use the under-utilized bottom of the 2m band 144.000-144.035, which had originally been harmonized for EME activity. "EME has subsequently moved to frequencies further up the band," Shirville said.

An IARU Region 1 representative noted that if the other IARU Region 2 and Region 3 are also willing to go for 144.000 and 144.025, then IARU Region 1 will support this proposal. IARU Region 2 Conference is in Cancun, Mexico in September 2013.

Additional details of the proposal and links to the Vienna C5 meeting minutes and papers are posted on the AMSAT-UK web at: http://tinyurl.com/FrequencyProposal (www.amsat-uk.org)

In the show "Amateur Radio Today" for May 5, 2013 Murray Niman G6JYB was interviewed about the IARU Region 1 Vienna conference and discussed the proposal to permit amateur radio satellite linear transponders operate in the very bottom section of the 144 MHz band.

The show, hosted by Hans van de Groenendaal ZS6AKV, provides a preview of the Dayton Hamvention, Murray Niman who represented the SARL (and RSGB) at the IARU Vienna Conference. The interview with Murray Niman G6JYB starts 34 minutes into the show.

Listen to Amateur Radio Today May 5, 2013 at:
http://www.amateurradio.org.za/ARTODAY5MAY2013pod.MP3 (lo-res)
http://www.amateurradio.org.za/ARTODAY5MAY2013.MP3 (hi-res)

AMSAT-NA President Barry Baines, WD4ASW notes that the AMSAT-NA Board of Directors is studying the IARU Region 1 proposal but has as yet not reached a decision on whether to support it or not. He further noted that EME operators and other weak signal people need to be canvassed before the Board is willing to reach a decision.

Barry observed, "The inclusion of this news item in ANS is meant to encourage conversation/discussion and is not meant to suggest implicit endorsement by AMSAT-NA. AMSAT members and others who wish to

comment on the proposal are encouraged to send their feedback to the AMSAT Board of Directors' mailbox at BOD at AMSAT.org."

[ANS thanks AMSAT-UK and the AMSAT-NA Board of Directors for the above information]

HAMSAT VO-52 Celebrates 8th Year On Orbit

Mani, VU2WMY, Secretary & Station-In-Charge Upagrah Amateur Radio Club VU2URC at India's ISRO Satellite Centre noted this week:

"It gives us great and immense pleasure to say that 'HAMSAT VO-52' completes eight fruitful years in orbit contributing to the wonderful cause of 'Amateur Radio Satellite Communication'.

The overall health parameters are excellent and we do hope that transponder(s) on-board 'HAMSAT VO-52' would continue to render good services for many more years to come.

On this joyous occasion, on behalf of everyone here in ISRO/India and on my personal behalf, I thank each and every user, contributors and well wishers for this great achievement.

Special thanks to Guru VU2GUR, Nitin VU3TYG, Partha VU2GPS, Sunil VU2UKR, Bob W7LRD, Trevor M5AKA and others for sending in their reports and suggestions for the possible HAMSAT 2."

[ANS thanks Mani, VU2WMY for the above information]

SA AMSAT Space Symposium Coming to Pretoria on May 18

The 2013 SA AMSAT Space Symposium will be held at the Innovation Hub in Pretoria on Saturday 18 May. Full details can be found on-line at: http://www.amsatsa.org.za.

Some of the program topics announced this week include:

+ Eddie Leighton, ZS6BNE, will take delegates on a historical journey in his presentation "living the dreams of our space pioneers", speaking of OSCAR-7, the oldest amateur satellite still operating.

+ Deon Coetzee, ZR1DE, will share his experiences developing a 14 MHz receiver to receive signals from the soon to be launched ZACube satellite.

+ Frik Wolff, ZS6FZ will have a presentation on antenna control.

SA AMSAT says, "The programme is packed with interesting papers to cater for all levels of interest and experiences. All attendees will receive a CD with all the presentations and other interesting material.

[ANS thanks SA AMSAT and the SARL News for the above information]

1000th Session of the Houston AMSAT Net Invites You to Check In

The Houston AMSAT net is on the air live on Tuesday evenings at 8:00 PM (Wednesday 0100 UTC) on the 145.47 W5RPT FM Repeater PL 123.0. The net can also be heard on Echolink on the AMSAT conference.

All interested satellite operators are invited to tune in on Tuesday, May 21 for 1000th consecutive session of the net. A special feature of the 1000th net will include AMSAT officers and other guests calling into the net.

If you are on the Echolink AMSAT conference you also count as being checked into the net.

[ANS thanks Andy W5ACM, Net Control of the Houston AMSAT Net for the above information]

NASA TV to Cover Soyuz Landing May 13

NASA Television will provide live coverage May 12-14 as three crew members aboard the International Space Station end five months in orbit and return to Earth for a scheduled landing May 13.

Expedition 35 Commander Chris Hadfield of the Canadian Space Agency, Tom Marshburn of NASA and Roman Romanenko of the Russian Federal Space Agency (Roscosmos) will undock their Soyuz TMA-07M spacecraft from the station at 7:08 p.m. EDT (UTC-4) May 13, heading for a landing on the steppe of Kazakhstan southeast of Dzhezkazgan at 10:31 p.m. EDT.

NASA TV's full coverage schedule is as follows (all times EDT):

Sunday, May 12:
3:40 p.m. -- Expedition 35/36 change of command ceremony

Monday, May 13:
3:30 p.m. -- Farewells and hatch closure (hatch closure scheduled at 3:50 p.m.)
6:45 p.m. -- Undocking (undocking scheduled at 7:08 p.m.)
9:15 p.m. -- Deorbit burn and landing (deorbit burn scheduled at 9:37 p.m., landing scheduled at 10:31 p.m.)
Midnight -- Video file of hatch closure, undocking and landing activities

Tuesday, May 14:
Noon -- Video file of post-landing activities and interviews

For NASA TV schedule and video streaming information, visit:
http://www.nasa.gov/ntv

[ANS thanks NASA for the above information]

Satellite Shorts From All Over

+ We receive occasional inquiries about the error message shown when attempting to access the prior AMSAT.ORG web pages. These prior web pages are down and are being replaced with a new AMSAT web presence.

You need to delete any old bookmarks pointing to http://www.amsat.org/amsat-new. The URL http://www.amsat.org should be manually entered into your browser. This will bring you to the new AMSAT web page currently under development. There is only basic information posted on this site at present but will expand in the future.

+ Members of the Camb-Hams are now active from the Isle of Mull (IOSA NH15, SCOTIA CN10, WLOTA 2485), Inner Hebrides, as GS3PYE/p until May 16. Look for 13 operators to be active on all bands and many modes from 160-2 meters as well as 472 kHz. The HF bands will be covered by 5 simultaneous stations, while 6m, 4m and 2m sta-tions will have a great take-off towards the UK and Europe. They will have an antenna elevation system for 2m EME activity and will also be on many of the VHF/UHF satellite passes.

+ Singing in Space: Russia's space agency Roscosmos said this week it has reached an agreement with US-based Space Adventures Ltd. company to proceed with the plans to put British singer Sarah Brightman on a space flight to the International Space Station in October 2015. A final decision on Brightman's journey to the ISS has not been made as it has to be coordinated between Roscosmos and NASA, fitting the demanding schedule of visiting flights to the orbital station. (SpaceDaily.com)

+ The 2013 Central States VHF Society Conference will be held near Chicago at the Elk Grove Village, IL, Holiday Inn from Thursday July 25 until Sunday July 28. Refer to the conference web at: http://www.csvhfs.org/2013conference/agenda.html for additional information on the technical program, family activities, and a tour of FermiLab.

+ If you can't make it to the Hamvention you can watch the event on the W5KUB.com world wide webcast. The live broadcast begins on Wednesday May 15 at 8:00 AM Central time for the 550 Mile drive from Memphis to Dayton live. The broadcast will be up on Thursday to show various vendors setting up. Then the show will feature Hamvention coverage Friday through Sunday. As in the past, W5KUB will be giving out thousands of dollars of ham prizes to their viewers. Join in on the fun at W5KUB.Com. When you login to the web chat room you are registered for the prize drawings.

+ In this video Canadian astronaut Chris Hadfield explains how to steer the ISS:

http://www.youtube.com/watch?feature=player_embedded&v=IZHw4UKFiHQ

+ In case you wondered why there was never a station broadcasting on UHF TV channel 37 find out why in the Universe Today story, "The Curious Channel 37 - Must-see TV For Radio Astronomy". http://tinyurl.com/channel37 (UniverseToday.com)

[ANS thanks everyone for the above information]

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In addition to regular membership, AMSAT offers membership in the President's Club. Members of the President's Club, as sustaining donors to AMSAT Project Funds, will be eligible to receive additional benefits. Application forms are available from the AMSAT Office.

Primary and secondary school students are eligible for membership at one-half the standard yearly rate. Post-secondary school students enrolled in at least half time status shall be eligible for the student rate for a maximum of 6 post-secondary years in this status. Contact Martha at the AMSAT Office for additional student membership information. And with that please keep in mind to never trust an atom ... they make up everything!

73,
This week's ANS Editor,
JoAnne Maenpaa, K9JKM

71. Weekly Highlights of Solar and Geomagnetic Activity, 06 - 12 May 2013

Newsgroup: rec.radio.amateur.space
Date: 2013-05-13 15:30:07 UTC
From: SWPC.Webmaster@noaa.gov
Message-ID: <20130513153001.2742133CC9@panix2.panix.com>
Source record: 48
Cross-posted to: rec.radio.amateur.misc,rec.radio.amateur.dx,rec.radio.amateur.space,rec.radio.shortwave,rec.radio.info

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:Product: Weekly Highlights and Forecasts
:Issued: 2013 May 13 0755 UTC
# Prepared by the US Dept. of Commerce, NOAA, Space Weather Prediction Center
# Product description and SWPC contact on the Web
# http://www.swpc.noaa.gov/weekly.html
#
# Weekly Highlights and Forecasts
#
Highlights of Solar and Geomagnetic Activity
06 - 12 May 2013

Solar activity was low for the first half of the week, and moderate
for the second. After a slow start with only low-level C-class
flares from the regions on the disk, activity jumped up to moderate
levels on 10 May when Region 1745 (N14, L=336, class/area=Ekc/600 on
12 May) unleashed an M3.9 flare at 0057Z shortly after rotating
around the east limb. Later that same day, Region 1745 produced an
M1.3 flare at 1256Z. Region 1745 and 1744 (N05, L=259,
class/area=Dai/190 on 12 May) were the most productive regions on
the disk during the week, with 10 C-flares each to their credit.
Region 1744 was responsible for the largest C-class flare of the
week, a C9.0 at 09/2316, immediately preceding the beginning of
moderate activity. The 11th was relatively quiet; the largest flare
was a C8.0 from Region 1746 (S27, L=337, class/area=Dhi/270 on 12
May) shortly after it emerged on the disk. However, there was a 16
degree filament eruption centered near N39W50 which began at
11/2230Z. The resulting CME was visible in LASCO/C2 coronagraph
imagery by 12/0000Z. WSA-Enlil output suggested this CME may brush
past Earth late on the 14th or early on the 15th. Moderate activity
returned on 12 April with two M-class events, an M1.9 at 2032Z and
an M1.2 at 2244Z, from a newly emerged region beyond the east limb.

No proton events were observed at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit was at
normal to moderate levels all week.

Geomagnetic field activity was at quiet to unsettled levels all
week. A positive polarity recurrent coronal hole high speed stream
brought unsettled conditions for the first three days of the week.
The remainder of the week saw quiet geomagnetic conditions.

Forecast of Solar and Geomagnetic Activity
13 May - 08 June 2013
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Solar activity is expected to be at low levels with moderate activity likely and a chance for high activity levels throughout the forecast period.

No proton events are expected at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit is expected to be at high levels begiining on 24 May and lasting through 31 May in response to a recurrent coronal hole high speed stream. Normal to moderate levels are expected for the balance of the period.

Geomagnetic field activity is expected to be at quiet to unsettled levels through the period with the exception of 15-16, 21-23. amd 28-29 May. Unsettled to active levels are expected on 15-16 May with the arrival of a glancing blow from the CME observed on 12 May. Conditions are expected to be unsettled to active on 21-23 May, and 28-29 May with in response to recurrent coronal hole high speed stream. Another high speed stream may bring unsettled conditions on 2-4 June.

72. Ham Radio Now for Wednesday 15 May 2013

Newsgroup: rec.radio.amateur.space
Date: 2013-05-15 08:06:44 UTC
From: rec-radio-info-request@panix.com
Message-ID: <f46d04463118697079 04dcbd3a5a@google.com>
Source record: 49
Cross-posted to: rec.radio.amateur.misc,rec.radio.amateur.space,rec.radio.info

Ham Radio Now

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HamRadioNow: hamShack Switch - Birth of a Product

Posted: 14 May 2013 09:16 AM PDT
www.HamRadioNow.tv

HamRadioNow – Episode 77: hamShack Switch–Birth of a Product

If your ham shack is a little more elaborate than ours, you probably have a rat's nest of cables. Maybe you've graduated from unplugging and re-plugging to manual switchboxes or maybe a patch panel to change configuration of your audio, keying, antennas and other station input/output. hamShack Switch (they drop the leading capital.... not a typo) is a new product, frrom a new company, that aims to help you clean that up. Your shack computer will control their switchbox and let you easily reroute all those peripherals, either locally or remotely.

Jack Ritter WØUCE started the new company after a lifetime in the telcom industry, and in addition to pitching the product, tells us about launching a new product in the Amateur Radio market.

73. Weekly Highlights of Solar and Geomagnetic Activity, 13 - 19 May 2013

Newsgroup: rec.radio.amateur.space
Date: 2013-05-20 15:30:06 UTC
From: SWPC.Webmaster@noaa.gov
Message-ID: <20130520153001.63EE533C9E@panix2.panix.com>
Source record: 50
Cross-posted to: rec.radio.amateur.misc,rec.radio.amateur.dx,rec.radio.amateur.space,rec.radio.shortwave,rec.radio.info

```
:Product: Weekly Highlights and Forecasts
:Issued: 2013 May 20 0139 UTC
# Prepared by the US Dept. of Commerce, NOAA, Space Weather Prediction Center
# Product description and SWPC contact on the Web
# http://www.swpc.noaa.gov/weekly.html
#
# Weekly Highlights and Forecasts
#
Highlights of Solar and Geomagnetic Activity
13 - 19 May 2013

Solar activity reached high levels during the week, in fact the
highest levels of activity since 2013 began. Between 13 and 14 May,
newly-numbered Region 1748 (N11, L=296, class/area=Eki/310) produced
an X2/1n flare at 13/1605Z and an X3/2b flare at 14/0111Z. Both
events produced several radio emissions. Three Tenflares were
observed at 14/0115Z (640 sfu), 14/0141Z (190 sfu), and 14/0203Z
(370 sfu). A Type-II radio sweep was observed at 14/0107Z with an
estimated velocity of 1514 km/s, in conjunction with a Type-IV radio
sweep at 14/0113Z. SDO/AIA 193A showed a flare on the East limb at
N12 from 14/0009-0154 and 14/0206-0224Z. A dimming and wave was
observed over the east hemisphere and North Pole. Two distinct halo
coronal mass ejections (CMEs) were subsequently observed on LASCO
imagery. The first appeard in C2 coronagraph imagery at 14/0125Z and
grew to a full HALO CME by 14/0224Z. The second event appeared at
14/0200Z with loop edge over the East and expanded to a partial HALO
280 degrees in width.

Solar activity remained at high levels on 15 May. Region 1748 grew
to a Dki/beta-gamma-delta and produced an X1/2n flare at 15/0148Z
associated with a Type II radio sweep (estimated shock speed 501
km/s), a Type IV radio sweep, a 440 sfu Tenflare; and a fast,
assymetric halo CME. The CME speed was observed in LASCO C2
coronagraph imagery at 15/0148Z and expanded to a full HALO CME by
15/0248Z. SDO/AIA 193/211/304 showed the flare at 15/0124-0212Z
which produced a faint dimming in the Northeast and North direction
and a wave over the East hemisphere. The CME had and earthward
component and its western flank reached Earth on 18 May at 0112Z.

Activity declined to moderate levels on 16 May with a single M1
flare from Region 1748 at 16/2153Z. Moderate levels continued
through 17 May when Region 1748 produced an M3/2b flare at 17/0857Z.
Type II (376 km/s) and Type IV radio bursts, as well as a 420 sfu
Tenflare, were observed with this event. At 17/0912Z, LASCO/C2
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coronagraph imagery observed a CME erupting from the east limb. It grew to a full halo CME by 17/0948Z and was estimated to be moving at approximately 1498 km/s. The CME reached Earth on 19 May at 2221Z.

The remainder of the week was dominated by low levels of activity as Region 1748 shrank to less than half its largest extent. The largest flare of the latter part of the week was a C9 observed on the east limb at 19/1750Z. The other regions on the visible disk throughout the week were relatively inactive, producing only low-level C-class activity.

A 10 MeV proton flux greater than 10 pfu at geosynchronous orbit event began at 15/1325Z, reached a maximum flux of 41 pfu at 17/1720Z, and ended at 18/1445Z. The 10 MeV flux remains enhanced at the time of this report. The event was attributed to the X1/2n flare at 15/0148Z.

The greater than 2 MeV electron flux at geosynchronous orbit was at normal to moderate levels all week.

Geomagnetic field activity ranged from quiet to minor storm levels with the arrival of two CMEs during the week. The first CME, which was observed leaving the sun on 15 May, passed the ACE spacecraft at 18/0023Z and arrived at Earth at 18/0112Z with a 31nT sudden impulse. Activity reached minor storm levels by 18/0300Z and remained there through the end of the 0300-0600Z synoptic period. Activity then dropped to active, unsettled, then quiet levels during the subsequent periods. The following evening, active levels were observed during the 0000-0300Z synoptic period.

The second CME, which left the sun on 17 May, passed the ACE spacecraft at 19/2221Z and arrived at Earth at 19/2306Z with a 29nT sudden impulse. Activity increased to active levels during the 2100-0000Z synoptic period.

Forecast of Solar and Geomagnetic Activity
20 May - 15 June 2013

Solar activity is expected to be low to moderate throughout the forecast period. High levels of activity are possible through 25 May and again after 7 June associated with Region 1748.

There is a chance for proton events at geosynchronous orbit, particularly through 25 May and again after 7 June associated with Region 1748.

The greater than 2 MeV electron flux at geosynchronous orbit is expected to be at high levels from 24-31 May associated with a recurrent coronal hole high speed stream.

Geomagnetic field activity is expected to reach minor to major storm levels on 20 May in response to the 17 May coronal mass ejection. In

the absence of any Earth-directed coronal mass ejections, the remainder of the forecast period is expected to be characterized by quiet to unsettled levels of activity with the possible exception of 28 May, when another geoeffective coronal hole high speed stream becomes geoeffective and brings active levels.